DESIGN FOR DEVELOPMENT: Midwestern Ontario Region

Phase 1: Analysis

Hon. C.S. MacNaughton
Treasurer and
Minister of Economics

H. I. Macdonald
Deputy Treasurer and
Deputy Minister of Economics

Department of Treasury and Economics
July 27, 1970

Ontario

DESIGN FOR DEVELOPMENT:

MIDWESTERN ONTARIO DEVELOPMENT REGION

PHASE I: ANALYSIS

Regional Development Branch,
Department of Treasury and Economics,

July, 1970

PREFACE

This report is an abstraction of a much larger research study which analyzed in considerable detail the Region's social, economic and physical resources, its trends and problems. The present volume contains the basic analysis, omitting only the background statistical details. It also includes in full the chapter concerning regional goals and objectives.

A limited number of research documents will be available for detailed study.

Regional Development Branch,
880 Bay Street,
Toronto, Ontario.

ONTARIO

DEPARTMENT OF TREASURY AND ECONOMICS

PARLIAMENT BUILDINGS
TORONTO

June 24, 1970

Mr. H. I. Macdonald,
Deputy Treasurer of Ontario
and Deputy Minister of Economics,
Chairman, Interdepartmental Advisory
Committee on Regional Development,
Seventh Floor, Frost Building,
Queen's Park, Toronto.

Dear Mr. Macdonald:

I am pleased to submit to the Interdepartmental Committee on Regional Development the accompanying Report, Design for Development: Midwestern Ontario Region. For this Region, the Report contains the analysis phase of our Approach to Plan. The second phase, which will be concerned with policy recommendations, will be completed later in the year.

Research on this Report has benefited substantially from information and recommendations from the Midwestern Ontario Regional Development Council and the Midwestern Ontario Regional Advisory Board. Valuable assistance also has been forthcoming from other sources, especially provincial departments and agencies.

The findings of the study are respectfully submitted for your consideration.

Yours sincerely,

Richard S. Thoman,
Director,
Regional Development Branch,
Department of Treasury and Economics.

Encl.

FOREWORD

This report is the second of a series to be prepared by the Regional Development Branch for Southwestern Ontario. It presents an initial analysis of the Midwestern Ontario Development Region's social, economic and physical resources, trends and problems. Many of the problems discussed in this study were first identified by various other government departments, and in many cases policies and programs intended to alleviate them have been initiated. The report will be refined as a result of commentary from sources inside and outside of Government. It will be followed by a Phase II report which will recommend planning solutions and development policy for meeting the needs which have been identified. A similar study has already been prepared for the Niagara (South Ontario) Development Region and others will be carried out for the remaining two development regions in Southwestern Ontario - Lake Erie and St. Clair - as well as for the rest of the province.

This study required the cooperation and assistance of a great number of organizations and individuals. In particular, appreciation is herewith expressed to: the Midwestern Ontario Regional Development Council, the Midwestern Ontario Regional Advisory Board, members of the business community, Industrial Commissioners, Planning Boards, Town Clerks, Canada Manpower Centre personnel, members of the academic community and various government departments.

The work on land use and land capability is being carried out, for the MODA Region as well as for all other parts of Ontario when Canada Land Inventory and other data are available, under joint ARDA financing of the federal and provincial governments. Finally, a statement of gratitude is due to the Ontario Statistical Centre for continuous and effective cooperation.

TABLE OF CONTENTS

LIST OF ILLUSTRATIONS

SUMMARY

In terms of overall social and economic growth, the performance of the Midwestern Ontario Region is above the provincial norm, suggesting a viable region with a high-growth potential. Distribution of this growth, however, is unbalanced.

The greatest proportions of population and overall development growth have concentrated in a corridor focusing on the urban centres of Kitchener-Waterloo, Guelph, Galt-Preston-Hespeler (commonly referred to as the Golden Triangle). To a degree this growth also merges into Stratford. The Golden Triangle shows distinctive development pulls towards the Toronto-Centred and Niagara Regions, while Stratford shows some orientation towards London. Within the last decade development has been directly stimulated by Highway 401, and aligned along the corridor of Highway 7. The 401-Highway 7 corridor, comprising only 14 per cent of the total land area, contains almost 61 per cent of total regional population. More important, between 1951 and 1966 over 90 per cent of total regional population growth occurred in this area.

The remaining 86 per cent of the Region's land area, accounting for 39 per cent of the total population, had only 10 per cent of the population growth during the 1951 to 1966 period. This area, located beyond the 401 corridor, generally falls below provincial standards of growth. It suffers from heavy out-migration,

lacks variety in employment opportunities and has below average social and cultural facilities. In brief, it is rapidly being left behind in regional and provincial development. This part of the Region is predominantly agricultural with small urban centres scattered throughout to serve the needs of the agricultural community.

Economic Development

The Region has a well diversified economic base in both agriculture and manufacturing. Both Huron and Perth counties are heavily reliant upon agriculture, and Wellington County to a lesser degree. Waterloo County is essentially a manufacturing area.

Agriculture - The value of products sold in the Region increased by more than 124 per cent between 1951 and 1966 compared to a provincial increase of only 76 per cent over the same period. Livestock is the most significant cash agricultural product in the Region, accounting for over 29 per cent of the total value of agricultural products sold in 1966.

Cash receipts per farm operator are above the provincial average. In 1965, the average receipts per operator were $12,600 compared to $10,000 in the Province. All counties in the Region had cash receipts per operator above the provincial norm, with Waterloo County being the highest at $16,800 followed by Perth County ($12,600), Huron ($11,600), and Wellington ($11,400).

There were 2,850 fewer farms in 1966 than in 1951. The average size farm increased during this period from 128 acres to 145 acres, indicating a degree of consolidation.

The decline in farm acreage, however, was relatively insignificant. Only some 100,000 acres were taken out of farmland compared to over two million acres still being farmed in 1966. Most of the decreases occurred in the more urbanized counties of Waterloo and Wellington.

Employment in agriculture has declined. An estimated 4,000 people left farming for other employment between 1961 and 1966.

Manufacturing - Waterloo County is the dominant manufacturing area of Midwestern Ontario, accounting for over 67 per cent of total employment in the region. Five centres - Galt, Guelph, Kitchener, Stratford and Waterloo - together accounted for over 80 per cent of total manufacturing employment.

The rate of growth of manufacturing employment in this Region has been well above that of the Province as a whole. The fastest growing industries (relative to the Province) have been rubber, textiles and transportation equipment.

Manufacturing outputs are shipped mostly to points in Central and Southwestern Ontario (over 45 per cent by value), most of which are inputs to other manufacturers. Only five per cent is

consumed within the Region.

In relation to the sources of raw materials and manufactured inputs, only 13 per cent came from within the Region. Ontario as a whole, but particularly the Niagara and Central Ontario regions, provided almost two-thirds of all manufactured inputs.

In the survey of manufacturing carried out by the Regional Development Branch in 1969 and 1970, manufacturers in Midwestern Ontario ranked highway and rail transportation systems, along with proximity to markets, as the Region's most favourable location factors affecting the operation of their plants.

Skilled labour is in short supply in Huron and Perth counties, where industry has most recently become established. Many of the workers are unskilled and have not yet oriented themselves to methods of industrial production. As a result, labour turnover, particularly in Huron County, is higher than in the Region as a whole.

Problem Identification

1. Per capita income in the Midwestern Ontario Region is generally lower than in the Province reflecting a different industry mix and a different socio-economic structure. This is especially serious in the more rural parts of the Region, where supplemental sources of income in addition to agriculture, are badly needed.

2. Employment opportunities are inadequate in the more rural counties. The reduction in the agricultural labour force, the remoteness from social and cultural amenities offered by the major regional centres and the absence of a diversified economic structure has resulted in considerable out-migration of the population, particularly in the younger age groups.

3. Even though the agricultural sector is viable, there is a continuing need to increase the proportion of farms grossing over $10,000 in the value of agricultural products sold. In 1966, almost 50 per cent of all commercial farms in the Region were below this level. In Huron and Wellington counties, the proportions were greater than 50 per cent.

Community and Regional Environment

The Midwestern Ontario Region is experiencing urbanization problems within its developing Southeastern urban corridor, and along its Lake Huron recreational shoreline. For example, Kitchener-Waterloo and Stratford, which are located in an intensively used agricultural area, need to optimize the use of land between agricultural and urban demands. Also of significance is the unique Mennonite community and the encroachment on their agricultural

lands by urban development.

Because of the physiographic characteristics of the land and the increased rate of urban development, many communities are being confronted with problems of water supply and sewage disposal. Compounding the problem is the increased cut of woodlots thereby resulting in more rapid water run-off.

The Lake Huron shoreline is becoming increasingly developed as a private cottage and recreation complex. A case can be made for extending the orderly development of such facilities while preserving part of this land for public recreational use.

Protection of the community and regional environment is becoming perhaps the most pressing need of modern technologically oriented urban society. This encompasses minimizing air, water, soil, scenic and noise pollution; preserving open space between centres and preventing urban sprawl along highways.

People in all parts of the Midwestern Ontario Region should have a wider choice of employment opportunities and a more complete variety of services. One of the objectives of Design for Development is to create a viable system of urban areas which offer concentrated ranges of choices and opportunities to all the people of the Region. The high cost of services may well make it impracticable to stimulate the growth of every urban centre in the future. A case can be made for concentrating the provision of services in a selected few urban

centres where the necessary population size and associated employment opportunities and choices can serve the needs of the northern and western parts of the Region.

Briefly, the Midwestern Ontario Region has a well diversified economic base, a manufacturing sector growing faster than in the Province of Ontario generally, an agricultural sector whose return per farm operator is far superior to the provincial average and vast still underdeveloped recreation potential. At the same time problems are evident. These are associated with the rapid growth and urbanization in the east, the loss of population and static economies in the west and the unguided proliferation of private recreation development along Lake Huron. Most of the problems relate to land use and space adjustment, economic development and environmental control.

CHAPTER I

INTRODUCTION

The Regional Development Program

In the Spring of 1966, the Ontario Government tabled its white paper, Design for Development, setting forth the basic policy for Ontario's emerging regional development program.

The white paper and subsequent cabinet announcements detailed certain fundamental regional development policies. These are:

1. That the vital role of the business community be recognized, that its contribution to the provincial economy be continuously assessed in view of provincial needs and resources, and that provincial policies be formed to encourage a rational expansion of private enterprise.

2. That individuals be encouraged to develop their full capabilities through provision of a climate of expanding social and economic opportunities for each region.

3. That regional and resource policies encourage adequate development of the natural environment while conserving the aesthetic qualities of that environment.

4. That the timing and impact of Ontario's large and expanding public expenditures be planned and coordinated effectively to fulfil, in an orderly way, the needs of the regions in the Province as well as of the Province itself.

5. That this be a Program for Regional Development which must necessarily involve a working partnership between all of the people of Ontario and government.

The institutional machinery established for implementing these policies includes a Cabinet Committee on Policy Development, chaired by the Prime Minister; and Interdepartmental Advisory Committee on Regional Development, chaired by the Deputy Treasurer and Deputy Minister of Economics; Regional Advisory Boards comprised of provincial field staff and Regional Development Councils with membership drawn from local governments and private groups.

The Regional Development Branch of the Department of Treasury and Economics is responsible for the preparation of regional plans. These plans, based upon recommendations of the Regional Development Councils and the Regional Advisory Boards, plus results of research from universities, from other Departments and from the Branch itself, will be presented in two consecutive reports - this Phase I analysis of trends and problems, and a subsequent Phase II report on planning policy recommendations. Both will be forwarded to the Regional Development Councils for public reaction before

consideration by the Cabinet Committee as policy.

The Background to this Report

The Regional Development Program has been undertaken in three stages. The Inventory stage, completed in 1967, was an assessment of all existing information, projects and policies of Ontario departments which were concerned with regional development. An active program of university research in regional development, also initiated that year, continues to contribute in-depth analysis of specific development issues.

The Evaluation Stage, completed in 1968, consisted of two parts. One involved the preparation of five-year program recommendations by the Regional Development Councils and parallel reports from the Regional Advisory Boards - both of which provided local evaluation of the nature of problems confronting each region. The other part, carried out by the Branch, involved the collection and assessment of some 63 statistical indicators of social and economic change for townships, counties and districts over the 1951-1966 period. The growth of each of these smaller areas was compared with that of the Province as a whole to provide a comprehensive evaluation of how each part of every region was faring in population growth, agriculture, manufacturing, services, city growth and other aspects of development. (See Figure 1)

The third planning stage begins with this Phase 1 report

which is largely concerned with analysis of the Region's social economic and physical resources, trends and problems.

The basic purpose of the current document is to draw together the analysis of opportunities and problems identified by the Regional Development Council, the Regional Advisory Board, other departments and our own staff so that a preliminary assessment may be made of relative needs and priorities for each zone and the entire region.

It is the latter task of defining future goals and needs for the Region that most demands resolution before proceeding with later stages in the Regional Development Program. This report is presented as a tentative starting point in seeking general agreement concerning the most desirable direction and degree of emphasis for future regional change. We intend to make the review of this report an open and frank dialogue, completely in keeping with the program's continuing emphasis on partnership between people and Government in planning a better future for Ontario.

A succeeding Phase 2 report on planning policy will recommend planning solutions and development guidelines for meeting the needs identified in this report. This Phase 2 report also will be referred to the people, by way of the Regional Development Councils, for thorough discussion before it is considered as policy.

Aggregate Performance

We have mentioned previously the Evaluation Stage of the Regional Development Program in which, using 63 selected indicators of population and economic change, the performance level of each county in the Province has been compared with the performance of the Province as a whole.

Five levels of aggregate performance have been distinguished. These are:

a. High

b. Moderately High

c. Intermediate (Provincial Average)

d. Moderately Low

e. Low

The Aggregate Performance Map (Figure 1) presents the results of this analysis.

In the Midwestern Region both Waterloo and Wellington Counties performed at a moderately high level and were thus above the provincial average; the performance in Huron and Perth counties was intermediate or at the provincial average. On the whole, the Region performed quite well relative to the Province.

Total population change by township between 1951 and 1966 (Figure 2) shows that in Huron County the percentage change in

AGGREGATE PERFORMANCE AREAS, BY COUNTY
DATA SOURCES: 1951 THROUGH 1966

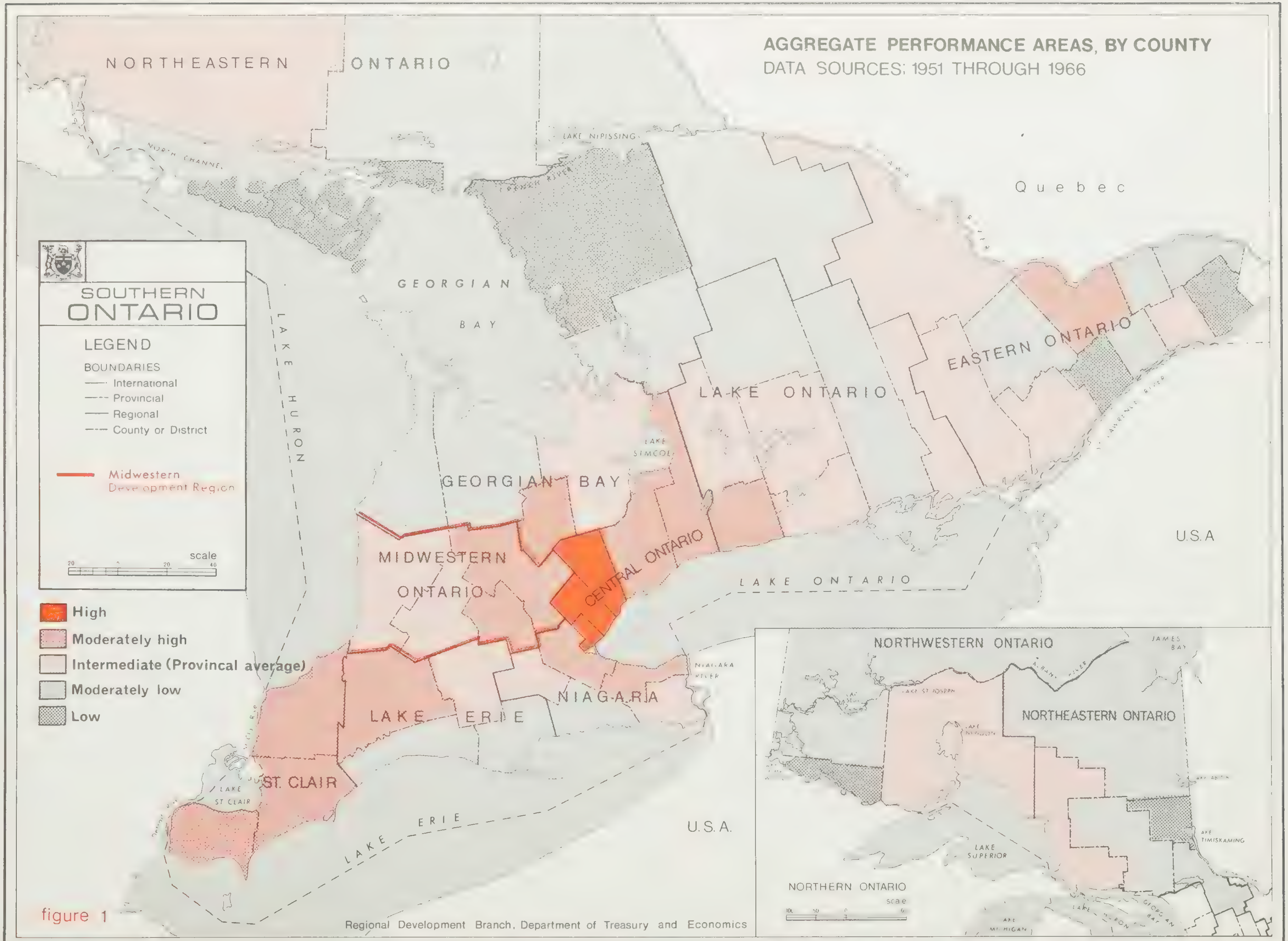


figure 1

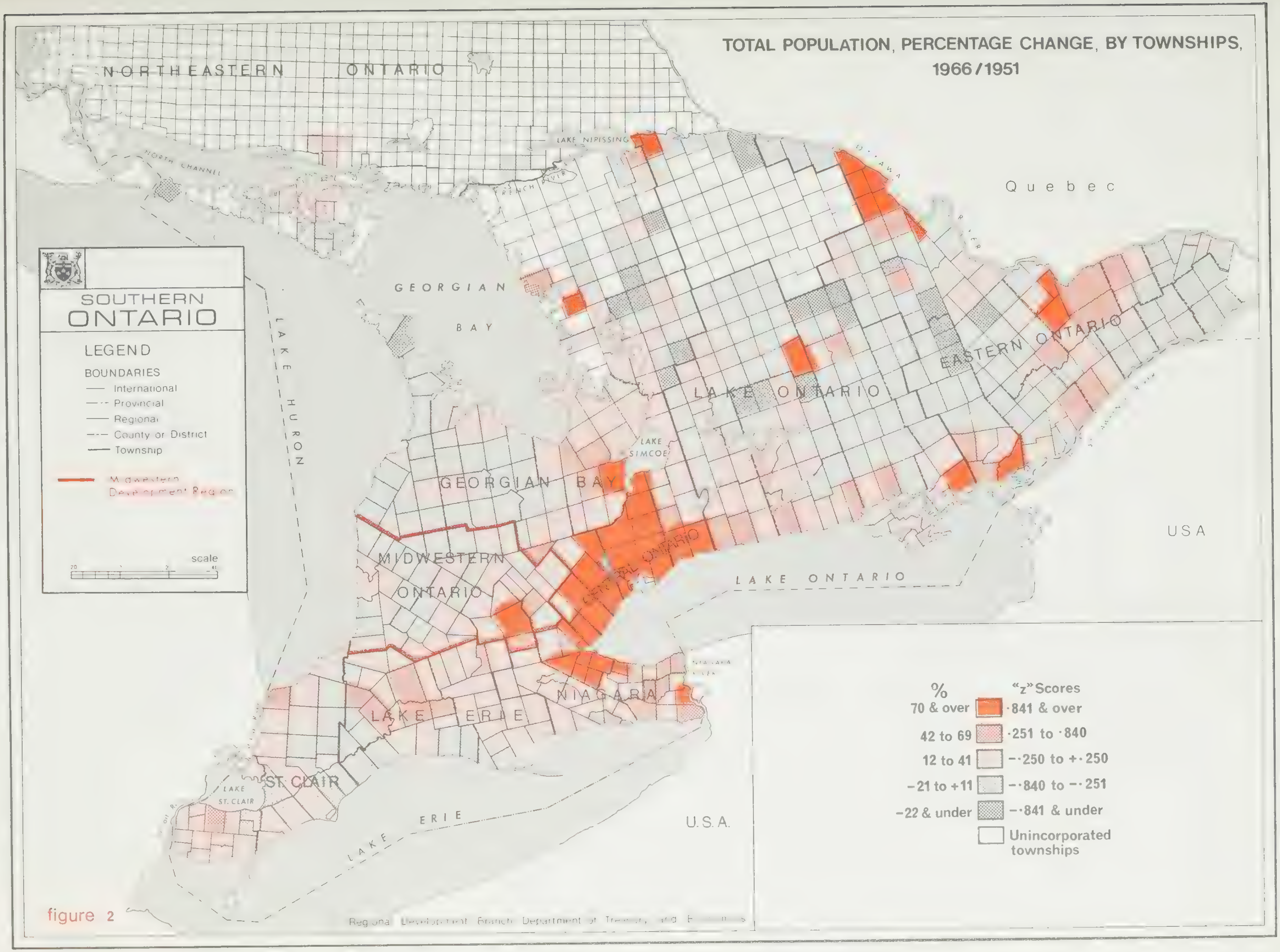

TOTAL POPULATION, PERCENTAGE CHANGE, BY TOWNSHIPS, 1966/1951
NORTHEASTERN ONTARIO
Quebec
EASTERN ONTARIO
LAKE ONTARIO
GEORGIAN BAY
MIDWESTERN ONTARIO
CENTRAL ONTARIO
NIAGARA
LAKE ERIE
ST. CLAIR
LAKE HURON
LAKE NIPISSING
NORTH CHANNEL
FRENCH RIVER
LAKE SIMCOE
LAKE ST. CLAIR
USA
U.S.A.
SOUTHERN ONTARIO
LEGEND
BOUNDARIES
International
Provincial
Regional
County or District
Township
Midwestern Development Region
scale
%
"z" Scores
70 & over ·841 & over
42 to 69 ·251 to ·840
12 to 41 -·250 to +·250
-21 to +11 -·840 to -·251
-22 & under -·841 & under
Unincorporated townships
Regional Development Branch Department of Treasury and Economics

figure 2

population was below the provincial average in all townships except Colborne, Goderich, Hullett, Tuckersmith and Stephen. The western part of Perth and Wellington counties also show a rate of population growth below the provincial average. Only those townships within the "Golden Triangle" (Waterloo, North Dumfries and Guelph) showed a rate of population change which was above the provincial norm.

CHAPTER II

PHYSICAL AND GEOGRAPHIC SETTING

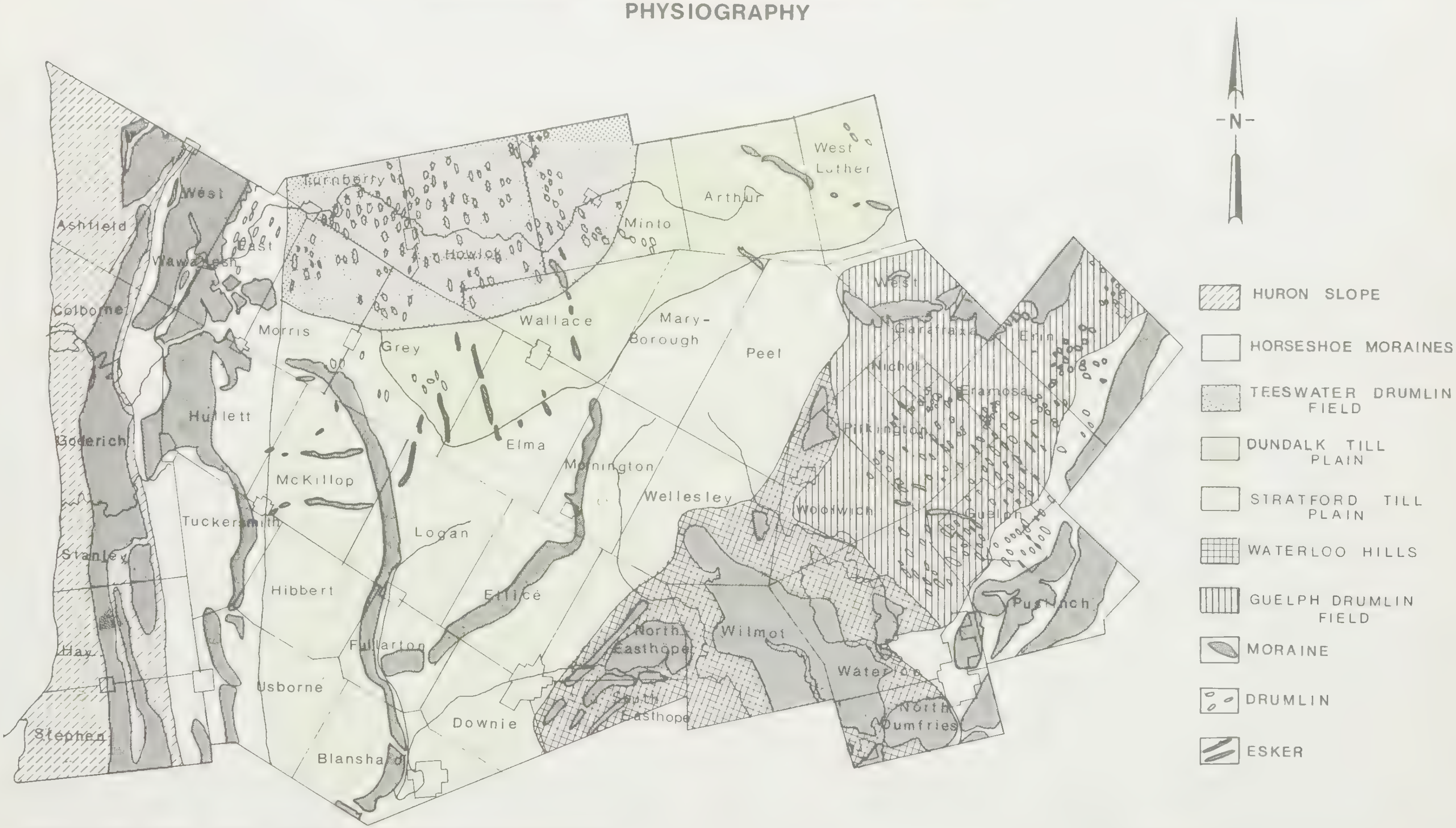
The Midwestern Ontario Region encompasses an area of 3,670 square miles and includes the four counties of Huron, Perth, Waterloo and Wellington. The strategic location of the Region with its balanced agricultural and industrial economy offers potential advantages in access to the metropolitan markets of Windsor-Detroit to the west, Toronto-Montreal to the east and New York State, via the Niagara Peninsula to the southeast.

Basic Geology & Physiography

Two major geologic processes have been instrumental in shaping the landscape of the Midwestern Region. The first has been the formation of a bedreock basin which dips slightly to the southwest and influences the courses of the main rivers. The second has been continental glaciation which created the younger deposits overlying the bedrock.

Major physiographic features of the Region are shown in Figure 3. Their respective roles in current and potential land use can be obtained in a comparison of Figure 3 with Figure 4 (existing land use pocket map); Figure 24, p. 112 (overall capability); Figure 26, p. 117 (wild life capability); and Figure 27, p. 120 (aquifers).

MIDWESTERN ONTARIO DEVELOPMENT REGION
PHYSIOGRAPHY



REGIONAL DEVELOPMENT BRANCH, DEPARTMENT OF TREASURY AND ECONOMICS
Source: **Chapman and Putnam**; Ontario Research Foundation; Ontario Department of Lands and Forests

figure 3

Major Resources

Agriculture Loamy soils, an equable climate and a generally rolling terrain have encouraged agricultural activity from early days of settlement. The Region has since developed as one of the outstanding mixed farming areas of Ontario.

The Region produces some 41 per cent of Ontario's mixed grain, over 50 per cent of its dry beans, and over 12 per cent of its buckwheat and tame hay. On a national scale, the Region is also a significant agricultural producer accounting for some 11 per cent of all poultry and eggs sold from Canadian farms and over 10 per cent of the livestock. The Region also grows more than 15 per cent of Canada's fodder corn, over nine per cent of the oats and over eight per cent of the nation's shelled corn. In addition the Region has become increasingly important in the production of swine and turkeys.

The Region is well endowed with good agricultural land; in fact, it contains 24 per cent of the Class 1 agricultural land in the Province of Ontario. Farm income generated in the Region is one of the highest in the Province, partially reflecting the fertility of the soil and its proximity to markets.

Although it is recognized that the agricultural sector is an important component of the Region's economics there is a need to determine the total demand for the Region's agricultural land in terms of an objective long-range assessment of provincial and national

food requirements and trade policy. Knowing how much of the Region's land will be needed for agriculture in the future is particularly important in reallocating land to alternative urban uses, particularly in the Kitchener-Waterloo and Stratford areas.

Recreation The Lake Huron shoreline offers the most extensive recreational areas. The Goderich and Grand Bend districts are especially popular vacation areas with beach resources which appeal to both residents and tourists. Cottages are located along most of its shoreline but some additional development could take place inland. Other cottage developments are found along the inland kettle lakes, quarries, and lakes created by Conservation Authority dams.

The Region is well endowed with recreational open space; specifically, the Point Farms Provincial Park in Huron County, 28 conservation areas and numerous municipal parks. In addition there are some ski areas, such as in the Chicopee Conservation area (east of Kitchener), the Minto-Glen Ski Resort near Harriston and the Ski Hill near Shakespeare, which meet local demand.

Minerals In 1966, almost 40 per cent of the Province's salt production and 22 per cent of the total output of cement originated from the Midwestern Ontario Region. The production of salt is centred in the Goderich area.

In the structural materials category, limestone, and sand and gravel are the most important minerals. Limestone beds are found in ample supply in the St. Marys area and are used in the production of cement. Although sand and gravel deposits are widespread throughout the Region, there are certain areas of concentration such as in North Dumfries and Puslinch townships.

As the sources of high-grade deposits of sand and gravel have become depleted near the larger metropolitan centres of Southern Ontario, the Midwestern Region has become one of the major suppliers.

Regional Water Supply Currently, the Midwestern Ontario Region is self-sufficient with water but future needs will be determined by the scale and location of urban growth within the Region.

At present, a high percentage of the water supply comes from ground sources such as artesian wells and aquifers. The other major source is supplied from Lake Huron, serving communities close to the lakeshore. The Ontario Water Resources Commission, the Waterloo Area Local Government Review, and various municipal bodies within the Region have expressed deep concern about future supplies. Ground reserves in the outlying rural areas appear to be sufficient for the forseeable future. However, in the urban areas, mainly in the "Golden Triangle" area of Waterloo and Wellington counties, present ground-

water supplies will not be adequate to meet the continued rapid population growth that is expected. Alternative sources of water will therefore, be required in the future.

Present Land Use Figure 4 (enclosed in the back pocket) shows the general land use pattern or the Region. Eight categories have been distinguished: residential, commerce and industry, forestry, agriculture, recreation, extractive industries, large institutional holdings and airports.

The southern and southeastern portions of the Region contain the greatest amount of urban built-up land, including the "Golden Triangle" and the Stratford-St. Marys area.

The Region is basically rural since most of the land is in agricultural holdings or in dispersed small woodlots. Many hamlets throughout the Region, serve the needs of the rural community.

There are several deposits of limestone, sand and gravel in the Region but the concentration is adjacent to the major urban built-up areas.

CHAPTER III

SOCIAL AND ECONOMIC CHARACTERISTICS

1. Population

Figure 2 shows the population change in each township of the Midwestern Ontario Development Region in comparison with the Province as a whole. Consideration must be given to other important aspects of population change.

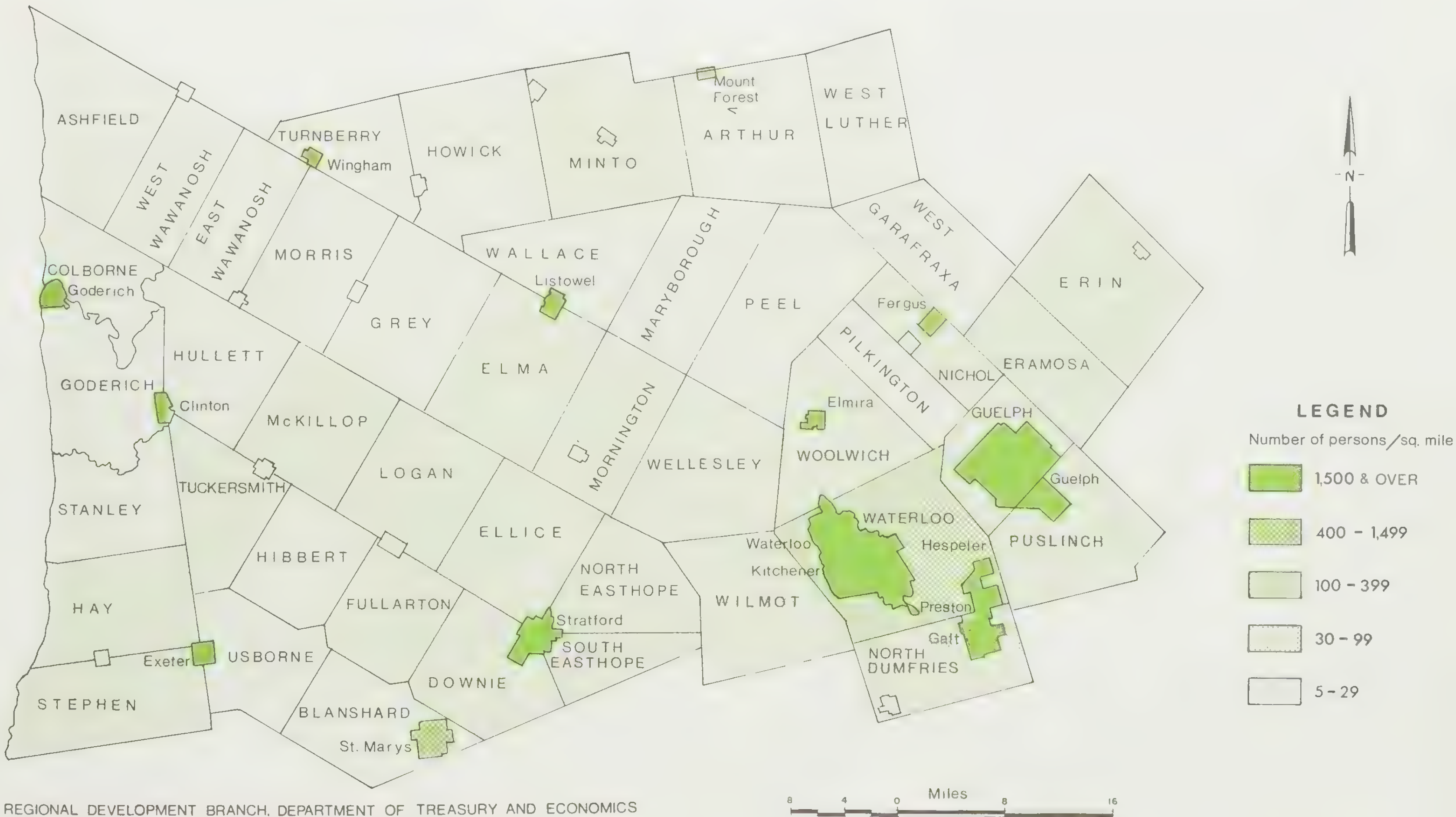
Since 1961 the rate of population growth in the Midwestern Ontario Region has been one of the highest of the ten regions of the Province. Population in 1966 was 425,775 and 73 per cent of the people were living in urban centres, with 54 per cent living in what is commonly referred to as the "Golden Triangle" comprising the major urban complexes of Kitchener-Waterloo, Galt-Preston-Hespeler and Guelph. (See Figure 5).

Between 1951 and 1966, over 86 per cent of the total population growth in Midwestern Ontario has occurred in the urban centres of the "Golden Triangle".

The township distribution of population further emphasizes the pattern of population concentration in the Region. The most populous townships are those which surround the largest urban areas. These townships are inhabited by a high proportion of non-farm people who logically should be considered as "urban residents".

MIDWESTERN ONTARIO DEVELOPMENT REGION

DENSITY OF POPULATION BY TOWNSHIPS AND INCORPORATED CENTRES OVER 2500, 1966



REGIONAL DEVELOPMENT BRANCH, DEPARTMENT OF TREASURY AND ECONOMICS
Source: Dominion Bureau of Statistics, Census of Canada Population, 1966

Figure 5

TABLE 3.1

POPULATION OF THE COUNTIES OF
THE MIDWESTERN ONTARIO REGION, 1966,
AND RATES OF CHANGES, 1951-1966, 1961-1966

County	Population 1966	Percentage Change 1951-1966	1961-1966
Huron	54,446	10.5	1.2
Perth	60,424	14.9	5.2
Waterloo	216,728	71.8	22.6
Wellington	94,177	40.7	11.2
Midwestern Region	425,775	44.4	14.2
Province of Ontario	6,960,870	51.4	11.6

Source: Dominion Bureau of Statistics, Census of Canada, Population, 1966.

There has been a noticeable rural to urban shift in population (Figure 6). This resulted in a net migration loss of people in the more rural counties of Huron and Perth. (See Figure 7). Concentration of total population towards urban areas may be discerned from spatial variations of population densities by townships. From the urban centres in Waterloo County, population densities decline rapidly to the west and northwest (Figure 5). Waterloo County had a population density of 420 people per square mile in 1966; Wellington, 92; Perth, 72; and Huron County, 42. For the Region generally, the population density was 116 people per square mile compared to 20 per square mile for the Province and 325 people per square mile in Central and Southwestern Ontario.

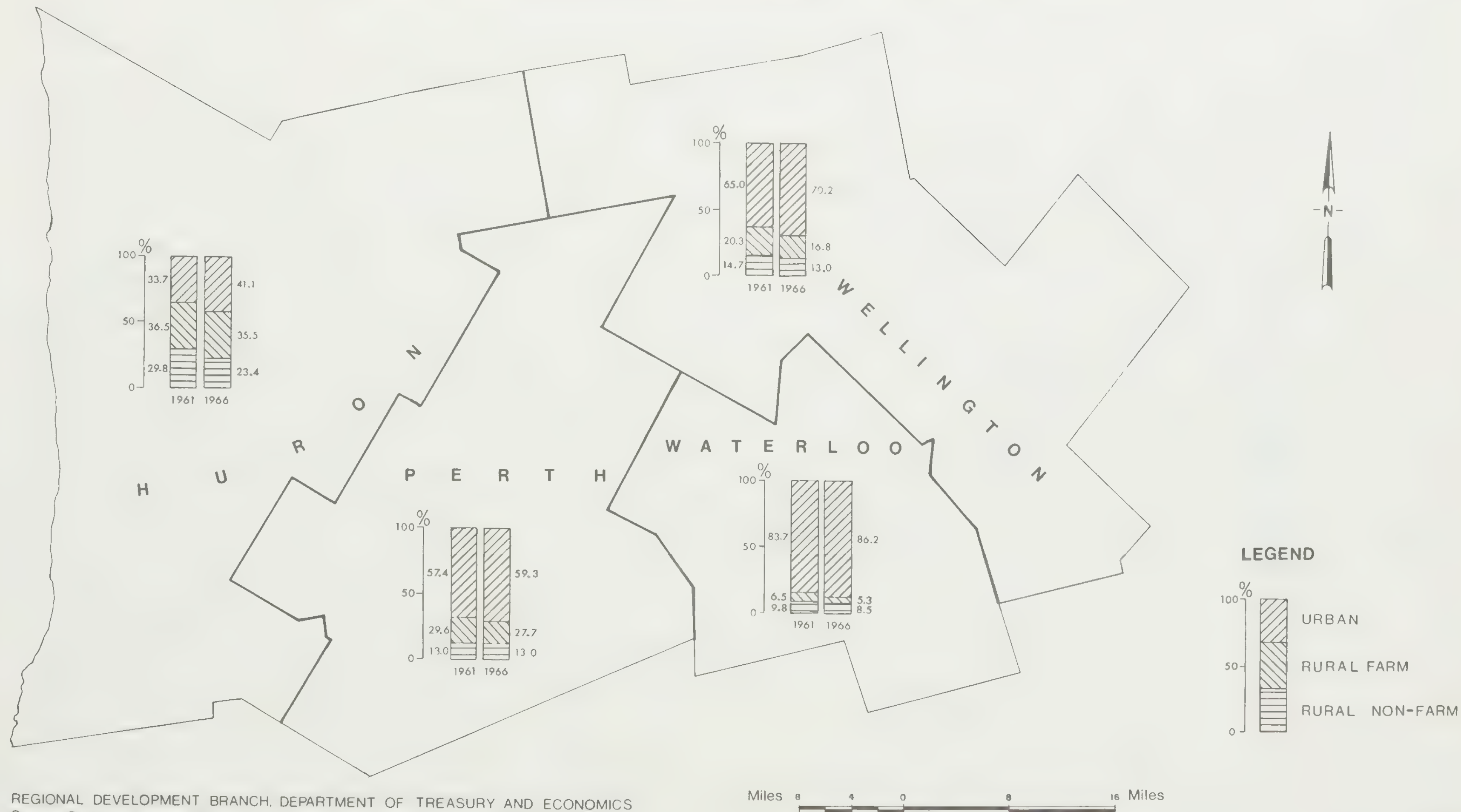
As in the Province generally, the largest percentage

MIDWESTERN ONTARIO DEVELOPMENT REGION

PROPORTION OF

URBAN, RURAL FARM & RURAL NON-FARM POPULATION BY COUNTY

1961 and 1966



REGIONAL DEVELOPMENT BRANCH, DEPARTMENT OF TREASURY AND ECONOMICS

Source: Dominion Bureau of Statistics, Census of Canada Population, 1961 and 1966

figure 6

MIDWESTERN ONTARIO DEVELOPMENT REGION

Figure 7

REGIONAL DEVELOPMENT BRANCH. DEPARTMENT OF TREASURY AND ECONOMICS

change in age group distribution since 1951 has occurred in the younger age group, between 5 and 19 years of age. In Huron and Perth counties, particularly the former, there have been proportionate declines in the young age groups, reflecting out-migration.

2. Labour Force

Between 1951 and 1961 (the latest year for which labour force statistics are available), there was a 20 per cent increase in the labour force of the Midwestern Region, to a total of 146,289 persons.

The most obvious changes during this decade were the 11 per cent decline in the agricultural labour force and the increased number of females working.

The Region showed a stronger leaning to agriculture and manufacturing than the Province generally, indicative of the Region's diversified economic base.

Manufacturing is concentrated in the "Golden Triangle", and agriculture in Huron and Perth counties. Differences between the counties in economic structure are striking, with Huron and Waterloo as diametrical opposites. The first is very much a farming area with only a few industries in its market centres - over 35 per cent of the labour force are in primary resource activities and less than 12 per cent in manufacturing. The second is exceptionally

strong in manufacturing with almost 44 per cent of the total county labour force engaged in this sector and only a little more than five per cent in primary resource activities.

The Midwestern Region lagged behind the Province in the provision of services in 1961. This probably reflects the developing nature of the Region during this period of time. Wellington was the only county with a labour force comparable to the provincial average for proportions engaged in community, business, and personal services. In retail trade, only Waterloo County, with 11.3 per cent of its labour force in that sector, reached the average for Ontario as a whole.

This general picture on services obscures a very important shift that has been occurring in the Kitchener area, that is, the striking rise of service employment and the corresponding relative decrease in manufacturing employment. Available data for the City of Kitchener show that the labour force in the entire services group (community, business, personal, trade, transportation and communications and government) increased from 34 per cent in 1951 to 47 per cent of the total in 1961. This shift is indicative of a qualitative change in the life style of the city which reflects a socio-economic and cultural re-orientation plus the emergence of the urban area as a major regional centre.

In transportation and communications - services that are

closely related to economic development - all counties lagged behind the provincial norm; the Region's percentage of the labour force in these activities was no more than two-thirds of the provincial ratio.

Perth and Wellington counties present an economic structure or mix somewhere between the two poles of Huron and Waterloo counties.

In a sense, three stages of economic evolution are represented within the Midwestern Region, with Huron and Perth counties intensively agriculturally oriented and less urbanized; Waterloo County heavily urbanized and industrialized; and Wellington County occupying an intermediate stage.

Differences in economic structure within the Midwestern Region are important because they are reflected in labour participation rates, in educational levels, in degree of urbanization and by implication, in income.

Labour Force Participation Rates The labour force participation rate shows the proportion of the working age population, defined as 15 years of age and over, that is available for work. It is contingent on the availability of economic opportunities, the social character of the Region (e.g. the presence of working mothers) and the predominate aspects of the economic base.

The participation rate in the Midwestern Ontario Region in 1961 was 58.0 per cent, slightly above the provincial average of 56.6 per cent. It was consistently above the provincial norm for all age groups.

Within the Region there are marked differences. Huron County, for example, had the highest male participation rates in the 15 to 24 as well as the 65 and over age groups, indicative perhaps of fewer young people in the County (outmigration or lower birth rates) or of comparatively fewer young people remaining in school for further education than in other counties of the Region generally. On the other hand, Waterloo County had the highest male participation rates in the 25 to 64 age group.

In female labour force participation, Waterloo County leads the Region in all age groups, with a total rate of 37.4 per cent. The largest differences are in the younger age group, 15 to 24, where the labour participation rate in Waterloo County is 52.7 per cent compared to 35.8 per cent in Huron County. There is a significant statistical relationship between female participation rates and the degree of urbanization and the extent of manufacturing activity. The two more agricultural counties of Huron and Perth have the lowest female labour participation rates, with the lower being in the former. However, it is important to recognize the economic contribution of working farm wives even though they cannot be classified as female labour force.

Summary Table 3.2 shows the percentage distribution of the 1961 labour force by county, and the Midwestern Ontario Region's position, by industry groups, among the ten Ontario regions.[1] The Midwestern Region has a diversified economic base, ranking third in agricultural and second in manufacturing concentration. At the opposite end of the scale, the Region ranks last in the services and transportation, communications and public utilities sectors.

3. Income

Income in the Midwestern Ontario Region is generally below that of other regions in the Province. For example, the Region ranked seventh of the ten regions in total labour income for all years between 1958 and 1966. Labour income per capita in 1957 was $436 less than the provincial average. By 1967, the latest year for which data are available, the gap had increased to $684. The fact that wages in the manufacturing sector tend to be lower, plus the existence of a large agricultural base, may well account

---

[1]The ranking system indicated here can be looked upon as an index of labour force concentration. It represents the ranking of economic areas by the percentage distribution of the labour force in an industrial grouping. For example, assume that there are three regions, A, B, and C. Of the total labour force, region "A" has 20 per cent engaged in manufacturing, region "B" - 30, and region "C" - 25. These regions would, therefore, be ranked as

B - 1
C - 2
A - 3

for the manufacturing sector. This procedure was applied to each sector.

TABLE 3.2

ECONOMIC STRUCTURE, RELATIVE LABOUR FORCE BY MAJOR INDUSTRY GROUPS, COUNTIES, MIDWESTERN REGION & RANK AMONG ONTARIO REGIONS, 1961

	Agriculture	Forestry	Fishing & Trapping	Mines, Quarries & Oil Wells	Manufacturing	Construction	Transportation, Communications & Other Utilities	Trade- Commerce		Finance, Insurance, Real Estate	Community, Business & Personal Service Industries		Public Administration and Defense	Industry not Stated
								Total	Retail		Total	Personal Services		
Huron	34.0	.1	.2	.9	11.6	5.1	6.0	11.2	9.2	1.8	12.8	4.6	15.0	1.3
Perth	25.7	.1	-	.1	25.0	5.3	8.3	13.4	10.1	2.4	14.9	5.2	2.9	1.8
Waterloo	5.2	*	-	.1	43.7	6.6	4.8	15.0	11.3	4.5	15.7	5.7	2.9	1.5
Wellington	16.4	*	-	.3	30.0	6.0	5.2	13.0	9.8	2.5	20.5	5.2	4.3	1.8
Midwestern Ontario Region	14.6	*	*	.2	33.6	6.1	5.5	13.8	10.5	3.4	16.3	5.4	4.9	1.6
Rank relating to other Regions	3	8	3	8	2	8	10	6	7	3	10	10	7	-
Province of Ontario	7.0	.7	.1	1.8	26.9	6.4	8.2	15.5	11.2	4.1	19.5	6.9	7.6	2.2

* Less than .05 per cent

Source: Adapted from L. O. Gertler (Study Director), The Concept of a Regional Development Plan, Planning and Resources Institute, University of Waterloo, 1968, Vol. I, Appendix I, Table 5.

for generally lower incomes in the Region.

Figure 8 shows the 1966 distribution of household income for each county compared with the Province. Huron and Perth have a greater percentage of households in the lower income groups, (under $5,000), and a smaller percentage in the higher income groups. On the other hand, household income in Waterloo County more closely approximates the provincial norm. Fewer households are in the higher income groups in the Midwestern Region than in the Province generally.

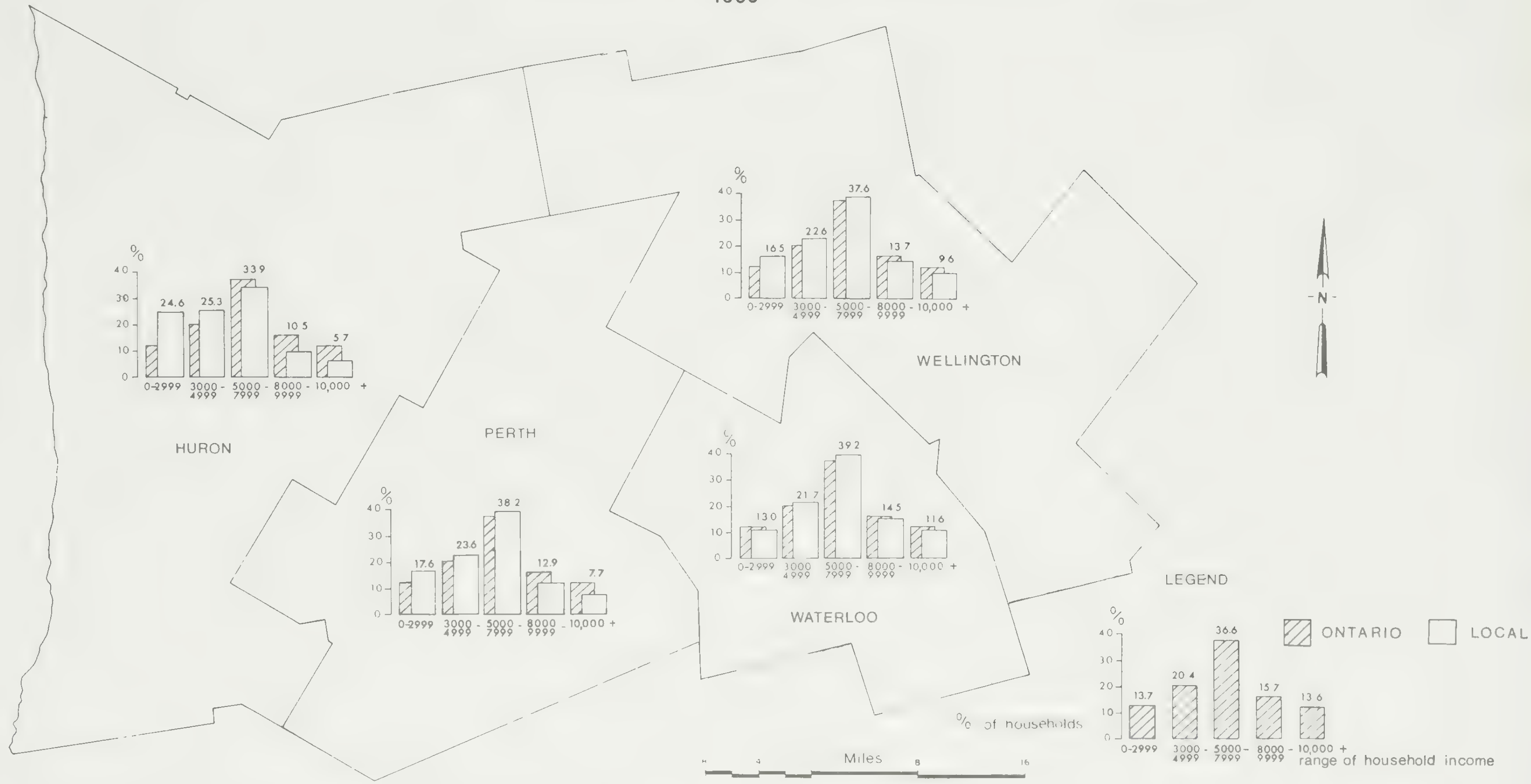
The survey of manufacturers, undertaken by the Regional Development Branch in 1969 - 1970, showed that the lower wage scales were an added inducement for some industries to choose the Midwestern Region as their location. In the short run, and until such time as the Region may acquire more dynamic and sophisticated manufacturing industries than currently exists, this wage differential may be advantageous to the Region.

All income measures indicate disparities among the four counties of the Region. For example, while all four counties were below the provincial average per capita income in 1966, Waterloo and Wellington approximated the provincial norm, but Huron County was $468 and Perth County $289 below it.

On the other hand, the cities of Kitchener, Waterloo, Galt

MIDWESTERN ONTARIO DEVELOPMENT REGION

DISTRIBUTION OF HOUSEHOLD INCOME BY COUNTY
COMPARED WITH THE PROVINCE
1966



REGIONAL DEVELOPMENT BRANCH, DEPARTMENT OF TREASURY AND ECONOMICS

Source: Sales Management Magazine 1967

Figure 8

and Guelph all had per capita incomes above the provincial average.

The greatest increases in per capita income from 1961 to 1966 took place in Wellington (37 per cent) and Huron (35 per cent) counties.

4. Education

Recent studies suggest that education is one of the most significant variables in economic growth. The Economic Council of Canada, in its Second Annual Review, pointed out that income of individuals is, in general, closely related to the extent of their schooling. Not only does such investment in human capital benefit individuals through increased incomes and a better quality of life, but it also benefits the community in the increased productivity of its labour force. In addition, quality of labour is an important variable considered by industrialists when choosing a new location. Thus the level of educational attainment by the Region's adult population is a reflection of the present labour quality, and the existing school population structure and the associated educational facilities are indicative of the potential of the Region's prospective labour force.

Although the educational attainment of the adult population has improved in all four counties of the Midwestern Ontario Region, the regional increase from 1951 to 1961 was not as great as that of the Province. (See Table 3.3).

The small proportion of people having grade 13 or post-secondary education is most pronounced in the predominately agricultural counties of Huron and Perth. Considerable improvement in educational attainment has occurred, however, particularly in Huron County, where in 1961 they had the highest percentage of people with four years or less of secondary education.

TABLE 3.3

PERCENT OF POPULATION, FIVE YEARS OF AGE AND OVER, NOT IN SCHOOL, BY YEARS OF SCHOOLING, 1951 & 1961

	Grade 8 or less		Grade 9-12		Grade 13 +	
	1951	1961	1951	1961	1951	1961
Huron	58.7	51.3	33.1	39.3	8.2	9.4
Perth	61.9	54.0	30.4	36.5	7.7	9.5
Waterloo	57.7	50.7	34.2	38.2	8.1	11.1
Wellington	53.9	49.2	36.5	38.5	9.6	12.3
Midwestern Ontario Region	57.7	51.0	33.9	38.1	8.4	10.9
Province of Ontario	50.7	45.7	38.3	40.1	11.0	14.2

Source: Dominion Bureau of Statistics, Census of Canada, Population, 1951 and 1961.

The educational levels of the school age population are shown on Table 3.4, which presents the secondary school survival rates from 1962 to 1966. The percentage of students who started grade 9 in 1962 and completed grade 13 in 1966 was higher in the Province than in Midwestern Ontario. On the other hand, a greater percentage of the students in the Region completed grades 11 and 12 than in the Province generally.

TABLE 3.4

SECONDARY SCHOOL SURVIVAL RATES, 1962-1966*

	1962 Grade 9 %	1963 Grade 10 %	1964 Grade 11 %	1965 Grade 12 %	1966 Grade 13 %
Huron	100.0	88.8	66.7	54.4	23.7
Perth	100.0	85.2	64.0	55.7	26.1
Waterloo	100.0	85.6	75.2	65.2	32.6
Wellington	100.0	85.5	70.4	60.5	30.6
Midwestern Ontario Region	100.0	86.1	70.7	60.6	29.5
Province of Ontario	100.0	86.4	68.0	58.7	30.5

*Survival rate calculated with 1962=100%

Source: Calculated from Secondary School Enrolment Projections, Ontario Institute for studies in Education.

There were disparities within the Region itself with the urban counties of Waterloo and Wellington having a higher survival rate than the more rural counties of Huron and Perth. The latter two counties were below the Provincial average.

The Midwestern Ontario Region is well endowed with post-secondary educational institutions, having three universities, a community college, a teachers' training college, an agricultural college and a variety of business and commercial schools. Almost all of these facilities are located in the "Golden Triangle", requiring travel or relocation by students living outside this urban

complex. However, higher education is generally specialized and it cannot be anticipated that such services would be available in each urban centre.

The Ontario Institute for Studies in Education (OISE) forecasts that there will be an increase in enrolment in secondary schools in all counties until the school year 1977-1978, after which a decline will follow. The OISE group also suggests that the rural counties of Huron and Perth will account for a decreasing share of the secondary school population, with Waterloo and Wellington increasing their present share.

In conclusion, there is a need to bring the level of educational attainment within the Midwestern Ontario Region into accord with that of the Province as a whole. Further, intra-regional disparities should be alleviated as much and as soon as possible. Any reduction in socio-economic inequalities will aid the rural population, especially in areas with decreasing population trends, low educational attainment, and low levels of income.

5. Health

The distribution and standard of health facilities provided in the Midwestern Ontario Region are not unlike the educational facilities discussed earlier - the more rural counties of Huron and Perth again lag behind their more urban counterparts of Waterloo and Wellington counties.

In general, the following observations may be made about health facilities in the Region.

(a) The Region has fewer dentists per capita than in the Province. The problem is most acute in Huron and Perth counties. (Table 3.5).

(b) The Region has fewer doctors per capita than in the Province generally. This is most acute in Huron County. (Table 3.5).

(c) The Region is well endowed with some 18 hospitals. In 1966, Waterloo and Huron counties were below the standard requirements for hospital beds per 1,000 population. In Huron County this resulted from the lack of chronic and convalescent beds. In Waterloo County, a major addition to the Kitchener-Waterloo hospital in 1969 has assisted in meeting provincial standards. (Table 3.6).

The Dominion Bureau of Statistics recently published a <u>List of Canadian Hospitals</u> - 1970 which indicates that major psychiatric facilities for the Region are located in both Guelph and Goderich. These facilities, plus the close proximity of psychiatric care in Woodstock and London adequately fill the Region's needs.

Table 3.5

DENTISTS AND DOCTORS PER UNIT OF POPULATION, 1966

	Population	No. of Dentists	Dentists per Population	No. of Doctors	Doctors per Population
Huron	54,446	13	1/4,188	35	1/1,566
Perth	60,424	16	1/3,777	57	1/1,060
Waterloo	216,728	82	1/2,643	246	1/ 881
Wellington	94,177	30	1/3,139	97	1/ 971
Total, Midwestern Region	425,775	141	1/3,020	435	1/ 979
Total, Province of Ontario	6,960,870	2,616	1/2,661	9,174	1/ 759

Sources: Canada, Dominion Bureau of Statistics, Census of Canada, Population, (Ottawa: Queen's Printer), Table 9.
Canadian Medical Directory, 1967, Seccombe House, 1967.
Proceedings of the Royal College of Dental Surgeons of Ontario, 1966 and 1968.

In addition, special hospitals for mentally retarded children are located in Palmerston and in Waterloo.

Figure 9 indicates the regions into which the Province has been divided by the Ontario Hospital Services Commission for its program of planning to meet needs for hospital beds and services. Although these regions are not used for administrative purposes, they do indicate in a general way the areas from which patients are referred to regional centres for specialized types of care. Thus for the Midwestern Region, Toronto and London are the regional centres to which referrals would be made.

Figure 9

Regional Development Branch, Department of Treasury and Economics

Table 3.6

HOSPITAL SERVICES, 1966

	Hospitals No.	RATED BEDS Total	Active	Psychiatric and Convalescent(1)	Chronic	No. of Beds per 1,000 Population
Huron	5	307	265	-	42	5.6
Perth	3	440	335	-	105	7.3
Waterloo	5	1,169	954	15	200	5.4
Wellington	5	630	495	-	135	6.7
Total, Midwestern Ontario Region	18	2,546	2,049	15	482	6.0
Total, Province of Ontario	317	45,828	37,228	1,337	7,263	6.6

(1) Figures refer to only those institutions which were assisted by O.H.S.C. in 1966.

Source: Ontario Hospital Services Commission, Annual Report, Statistical Supplement, 1966.

Figure 10 shows the divisions which are being considered by the O.H.S.C. for regional planning purposes. Should these planning areas be adopted, the western part of the Region (mostly Huron and Perth counties) will be within the London referral system and the eastern part (Waterloo and Wellington counties) will change from the Toronto to the Hamilton referral division. Regional referral centres are based on university hospital and within the region,

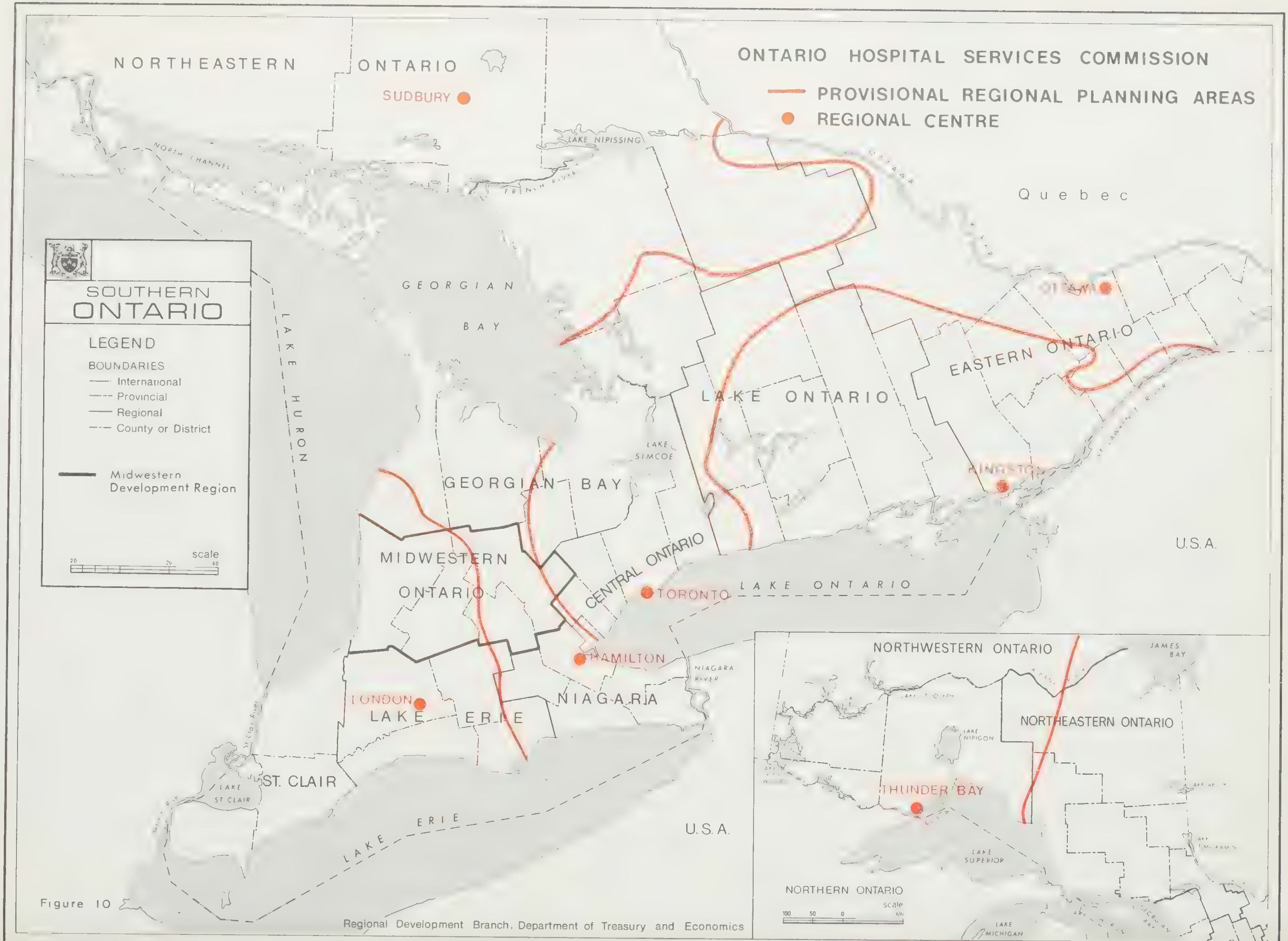


Figure 10

Regional Development Branch, Department of Treasury and Economics

Kitchener will continue to serve the role as the district referral centre.

The Ontario Department of Health is presently engaged in a program to assist physicians and dentists to enter general practice in underserviced areas of the province, by guaranteeing them an annual income and providing grants. In the Midwestern Ontario Region, the following areas were designated as underserviced as of March 1970: Seaforth in Huron County; Milverton in Perth County; Arthur, Drayton Erin, Hillsburg, Moorefield (Maryboro Township), Palmerston and Rockwood in Wellington County.

In order to qualify for listing as underserviced, municipalities are required to ensure that adequate clinic, office and housing facilities are available at reasonable rates. These requirements are somewhat difficult to meet for less prosperous municipalities especially in the more rural parts of the Region.

Under an additional scheme, substantially increased bursaries have been established in order to encourage Ontario medical and dental students to enter general practice in areas designated as underserviced.

6. Public Safety

As a measure of public safety, the incidence of accidents, crime and fires for the Midwestern Ontario Region and its counties

was compared to a provincial norm.

Table 3.7 portrays the variations among counties in terms of traffic fatalities, drownings, occupational and other accidents.[1] It is apparent that the more rural counties of Huron and Perth have a higher incidence of traffic and other accidental deaths (as defined in the footnote below) than the more urbanized counties of Waterloo and Wellington. All counties except Waterloo have a ratio of traffic and other accidental deaths above the provincial norm.

The highest incidence of drowning occurs in those counties with the most intense outdoor recreational activity, namely Huron and Wellington. Occupational accidents are lower in the Region and in all counties except Wellington.

Table 3.8 selectively measures crime in the Region. All counties plus the Region as a whole, have a lower than average incidence of reported crimes. The highest rate is found in Waterloo County, the most densely populated (and most urbanized county). This relatively low incidence of reported crimes has required fewer police per capita than the provincial average.

---

[1]This category includes a variety of causes of death such as poisoning, firearms, falls, homicide, suicide and explosions.

Table 3.7

TRAFFIC FATALITIES, DROWNINGS, OCCUPATIONAL AND OTHER ACCIDENTS, MIDWESTERN ONTARIO REGION

	Huron	Perth	Waterloo	Wellington	Midwestern Region	Ontario
Ratio of Traffic Fatalities to Vehicles, (1)	101	88	56	70	70	62
Ratio of Drownings to Population, (2)	55	33	23	53	35	51
Ratio of Industrial Accidents to Labour Force, (3)	99	44	34	112	60	101
Ratio of Other Accidental Deaths to Population, (4)	51	48	30	38	37	36

Notes: (1) Computed from the number of traffic fatalities per 100,000 vehicles 1961 to 1966.

(2) Calculated as the annual average number of drownings per million population, 1961 to 1966.

(3) The 1968 labour force data were estimated from 1966 population figures and the 1961 labour force participation rates. The ratio was computed per 100,000 labour force.

(4) Computed per 100,000 population.

Sources: Province of Ontario, Vital Statistics for 1961 and 1966, Queen's Printer; Special Tabulation, Workmen's Compensation Board, 1970.

TABLE 3.8

CRIME IN THE MIDWESTERN ONTARIO REGION, 1967 AND 1968

	Huron	Perth	Waterloo	Wellington	Midwestern Region	Ontario
Ratio of Reported Crimes to Population, (1)	8	24	38	20	32	49
Ratio of Police to Reported Crimes (2)	122	55	34	79	47	33

Note: (1) Computed per 1,000 population
(2) Computed per 1,000 reported crimes

Source: Ontario Police Commission, Consolidation of Criminal Statistics; Ontario Provincial Police, 1967 to 1968; Department of Justice, Special Tabulation, 1968.

Table 3.9 shows that, for the Midwestern Region, the incidence of fires approximated the provincial average for the period 1965 to 1969. Only Wellington and Perth counties had fire occurrence rates above the provincial average, while in Huron County the rate was much below. In damage to property, only Huron County was below the provincial average in 1969. Finally, it should be noted that while the Region as a whole has approximately the same ratio of firemen to number of fires as does the Province, Huron County, with its very small number of fires, has more than twice the average ratio of firemen, while

Waterloo, Perth and Wellington fall slightly more than ten per cent below average. For the latter two counties, with their higher than average incidence of fires, this relative shortage of professional fire fighting personnel may be considered important.

TABLE 3.9

FIRES IN THE MIDWESTERN ONTARIO REGION, 1965 TO 1969

	Huron	Perth	Waterloo	Wellington	Midwestern Region	Ontario
Ratio of Fires to Dwellings, (1)	7	12	11	15	11	11
$ Value of Property Damage per Dwelling, 1969	$16	$27	$27	$27	$26	$25
Ratio of Firemen to Fires (2)	216	84	84	86	95	95

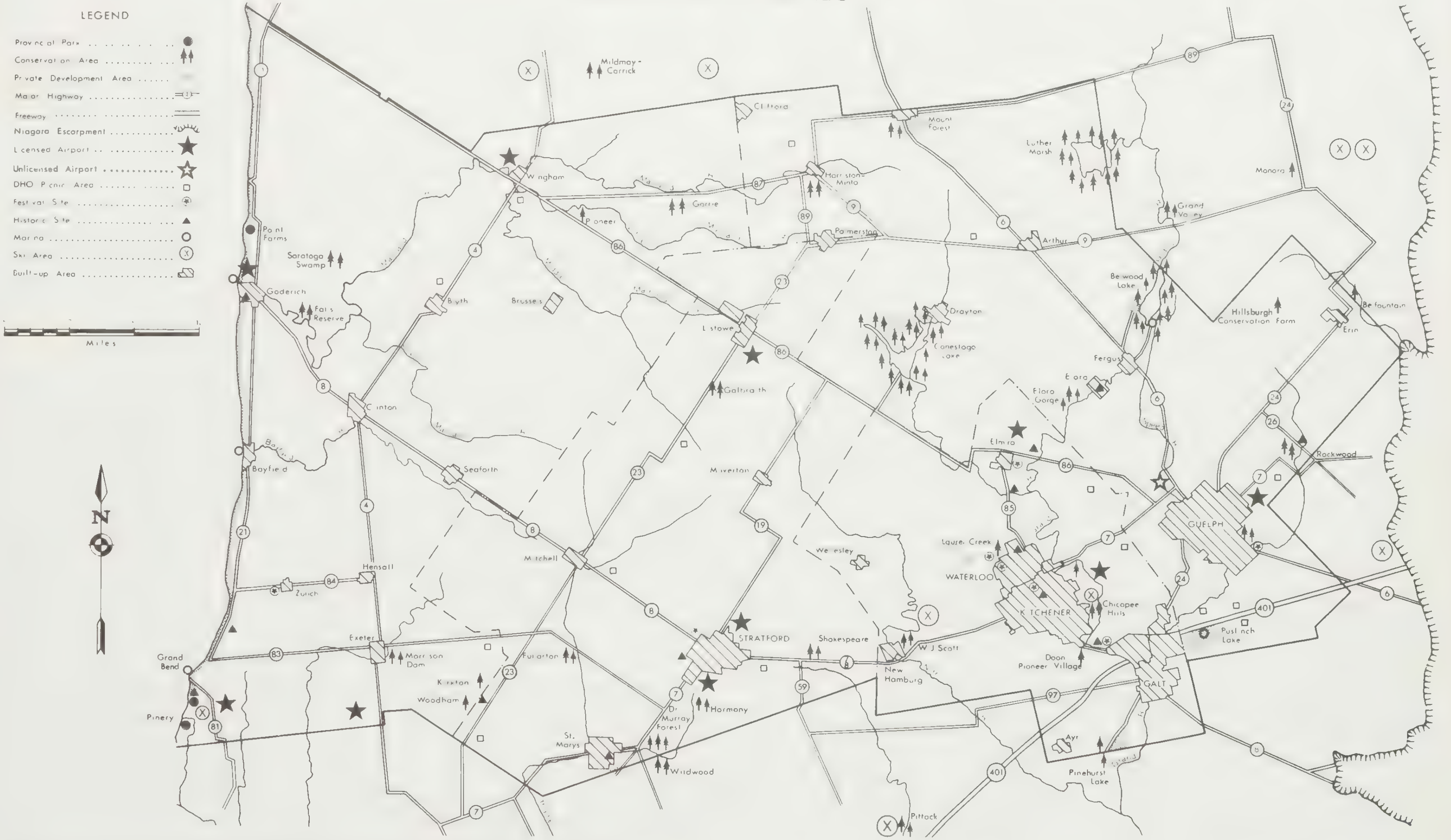
Note: (1) Calculated as the annual average number of fires per 1,000 dwellings, 1965 to 1969.
(2) Computed as the number of firemen per 100 fires, 1969.

Source: Fire Marshall, Annual Report, Department of Justice, 1968.

7. Recreational and Cultural Facilities

Tourism, which could form a substantial part of the economic base for large sections of the Region, has not been adequately developed. In addition to the water-oriented potential, numerous latent attractions exist - particularly of an historical and cultural nature.

MIDWESTERN ONTARIO DEVELOPMENT REGION
RECREATION FACILITIES



Source: REGIONAL DEVELOPMENT BRANCH, DEPARTMENT OF TREASURY AND ECONOMICS

Figure 11

Overall population growth, together with increasing urbanization within the Region, is creating a substantial and increasing local demand for recreational opportunities. Moreover, the Region is quite accessible to the major urbanized portions of Southern Ontario and the Northern United States.

Within the Region there is a fairly well developed transportation infrastructure upon which the growth of tourism can be encouraged. A community pattern which is still largely latent but which may emerge strongly in the period ahead, is based on the recreation travel paths from Kitchener-Waterloo and Guelph along Highways 8 and 86 to the Huron shoreline. These have potential as recreation corridors, along which the communities could develop their distinctive attractions, as has occurred in Stratford. The Highway 8 corridor has the greatest potential because it is closely linked to Toronto by means of Highway 401; the recreation travel habit to Stratford from points east is well established; and there is a terminal magnet of considerable potential in the town of Goderich - with its attractive harbour site, distinctive town plan and historical interest associated with the Canada Company.

Tourist Accommodation Spending on accommodation generally consumes a large portion of the tourist dollar, and the attractiveness of such facilities may influence the development of tourism in a region. The trend in the type of accommodation available in the

Midwestern Region closely followed that of the Province between 1956 and 1967. The number of cabins and hotels declined while the number of motels and cottages increased. The bed capacity increased by 1,846 during this decade, mainly in motel accommodation, and was generally concentrated in Waterloo County.

Cottages There were some 4,200 private cottages in the Midwestern Region in 1968. Of these, 2,800 are located along the Lake Huron shoreline while the remainder are along the inland kettle lakes, quarries and lakes created by Conservation Authority dams. Further cottage development around these conservation lakes is not being encouraged. The limited amount of remaining underdeveloped lakeside sites will require that major attention be given to "in-depth" and "cluster" design for future water-oriented private recreation facilities.

Conservation Areas There are approximately 26,500 acres of open space in the Midwestern Region, of which approximately 22,400 acres are in Conservation Areas (Table 3.10). However, only about one-fourth of the Conservation acreage has been developed for recreational purposes. Some of the land is not usable for recreational open space, but for protection of a resource.

Conservation areas offer such facilities as camping, swimming, picknicking, boating, fishing, hiking on nature trails and conservation demonstrations. In 1968, approximately 575,000 visitors used the 28 conservation areas.

Five more conservation dams, with resulting recreation areas are proposed. These will be located near West Montrose on the Grand River, near Ayr on the Nith River, near Hespeler and Guelph on the Speed River and near Everton on the Eramosa River.

It should be pointed out that relatively few Conservation Authorities exist on the shorelines of Lake Huron for the area which forms the boundary of the Midwestern Region.

TABLE 3.10

REGIONAL RECREATIONAL OPEN SPACE

PUBLIC	NO.	CAMPSITES	ACRES
1. Provincial Parks			
Point Farms - Huron County	1	215	575
2. Conservation Areas			
Huron County	5	74	699
Perth County	8	62	3,480
Waterloo County	7	150	1,250
Wellington County	8	450	16,937
TOTAL	28	736	22,366
3. DHO Picnic Areas	17	-	15
PRIVATE			
1. Campsites and Trailer Camps			
Huron County	7	555	83
Perth County	2	174	220
Waterloo County	9	360	382
Wellington County	5	211	769
TOTAL	23	1,300	1,454
2. Ski Areas	3	-	70
PUBLIC & PRIVATE GOLF COURSES	30	-	2,000

PRIVATE	NO.	CAMPSITES	ACRES
TOTAL MIDWESTERN ONTARIO REGION		2,251	26,480

Source: Ontario Department of Tourism and Information

Provincial Parks There is only one provincial park in the Region, Point Farms, located on the Lake Huron shore, north of Goderich. The park, which was opened in 1965 and not fully developed until 1968, contains 575 acres and has 215 campsites. A 1968 user survey indicated the following:

(a) 80,696 persons visited the park.

(b) 6,483 campers spent 13,727 camper days, or an average length of stay of 1.6 nights.

(c) 85 per cent of the campers came from the Province of Ontario and 18 per cent from the Midwestern Region. It is probable that the proportion of day visitors from within the Region would be even higher as the park is within day-trip range of all parts of the Region.

Pinery Provincial Park, located just outside the Region on the Huron shore, south of Grand Bend, is a larger park (5,161 acres with 1,075 campsites and receives more than eight times as many visitors as Point Farms. The percentage of campers from the Midwestern Region to this Park is approximately 15 per cent. Moreover, it is within day-trip range of all parts of the Region.

In addition, the provincial government has recently announced that it will establish a 5,000 acre wildlife area in marshland bordering the South Maitland River in Hullett Township."

Cultural Facilities The Stratford Shakespearian Festival is the main tourist attraction in the Region. Its importance can be seen from the results of a Visitor Survey by the Department of Tourism and Information in 1966. This survey showed that approximately $8 million was generated by tourists in Stratford that year, $5 million of which was spent by visitors who came to see the Festival.

The same survey also concluded that 20 per cent of employment in Stratford and vicinity was generated by tourism.

There are also several other special events in the Region which attract tourists. Of special note are the Elmira Maple Sugar Festival, the Highland Games in Fergus, the Kitchener Octoberfest, the Zurich Bean Festival, the Midwestern Rodeo in Exeter and the Kitchener Market. In addition, there are facilities of historical and cultural interest which include five historic museums, two public art galleries, a symphony orchestra and theatrical facilities.

Expenditures In 1967 Midwestern Ontario ranked eighth in the number of visitors and ninth in visitor spending in the ten regions. In that year, less than six per cent of the total number

of visitors to Ontario came to the Midwestern Region. Ontario residents made up the largest component of visitors, over 94 per cent. (See Table 3.11). Most of the Ontario visitors came from either the Metropolitan Horseshoe or Western Regions.[1]

TABLE 3.11

NUMBER OF VISITORS AND EXPENDITURES, 1967

	No. of Visitors	Expenditures of Visitors ($000's)
Ontario	3,785,035	24,268
U.S.A.	131,968	3,362
Other Provinces	81,974	2,088
Total	3,998,977	29,718
% of Provincial Total	5.6	2.6

Source: Ontario Department of Tourism and Information

The average per capita provincial expenditure on recreation and community services in 1964, 1965 and 1966 was $6.50. The major urban centres of the Midwestern Region all spent more than this. For example, expenditures in Galt were $11.80 per capita;

---

[1] Ontario Department of Tourism and Information, A study of the Travel Habits of Ontario Households, June 15, 1966 to June 15, 1967, by Peter Klopchic, Toronto, June, 1969. Metropolitan Horseshoe = Central Ontario and Niagara Regions; Western = Lake Erie, Lake St. Clair, and Midwestern Ontario Regions.

Goderich, \$11.40; Kitchener-Waterloo, \$1.80; Guelph, \$7.30; Preston \$7.10; and Stratford, \$6.60.[1]

Recreation Factor Analysis Using 40 selected variables relating to recreation in all counties and districts in the Province of Ontario, the Ontario Economic Atlas, produced by the Department of Geography, University of Toronto, shows how the Midwestern Region ranks in the provincial recreational matrix. Table 3.12 presents a summary of the factor analysis.

TABLE 3.12

RATING OF RECREATION FACTORS

	Huron	Perth	Waterloo	Wellington
Employment in recreation	Average	Very Low	Very Low	Very Low
Cottaging and Camping	Moderately Low	Quite Low	Average	Very Low
Use of Recreational Facilities	Moderately Low	Very Low	Moderately Low	Very Low
Accommodation Facilities	Moderately Low	Quite Low	Moderately Low	Very Low

Source: W. G. Dean (ed), Economic Atlas of Ontario, University of Toronto Press, 1969. Plate 83.

Huron County rates the highest in recreational provision in the Midwestern Region, followed by the County of Waterloo. The

---

[1]Figures compiled from Department of Municipal Affairs, 1968 Summary of Financial Reports of Municipalities.

other two have a very low rating. Most of the variables used in the factor analysis, however, related to accommodation e.g. capacity, number of visitors, and revenue.

The Midwestern Region does not offer as exciting a landscape for outdoor recreation as many of the other regions. However, much could be done in developing its river valleys into a system of regional parks. The extensive areas of farming provide a picture of a mature and well cared-for regional environment of high rural productivity. They also contain the distinctive folk cultures of the settlers of Waterloo and Wellington counties. The 45-mile Lake Huron shoreline is a very important recreational resource. The Region also contains many historic sites. To date many of these have not been developed to their full potential.

The number and capacity of the Region's outdoor recreational facilities (conservation areas, woodlands, open space, rural and urban parks), is presently inadequate to serve the people of the four counties as well as the many people who travel to the Region from other areas. The situation is made more serious with the realization that:

1. Some of the existing facilities are already becoming badly congested and subject to damaging overuse during peak use periods; in the Conservation Areas,

in particular, eventual loss or blighting of the attracting environmental features will result.

2. Varying water quality of the Region's watercourses may affect some recreational uses.

3. The Lake Huron waterfront is a very important recreational resource within the Region with substantial potential for future development for major public regional parks, recreational and Conservation Areas; but to a very large extent the public cannot gain access to it.

CHAPTER IV

THE ECONOMIC BASE

Introduction

The purpose of the economic base study is to gain a comprehensive understanding of the structure and functioning of the regional economy. This study is fundamental to the preparation of detailed regional development plans.

1. Agriculture

While agriculture is one of the major components of the Region's economy, employment in this sector has been declining. During the 1951 - 1961 decade, more than 2,600 persons left farms for other employment. It would appear that this trend has intensified within recent years as another 4,000 people left the farming community between 1961 and 1966. The greatest exodus is from farms in the counties of Huron and Perth.

Farm acreage declined during the 1951-1966 period by over 100,000 acres - but this decline is relatively small when compared to the over two million acres of farmland which existed in 1966. Most of the decreases in farmland occurred in the more urbanized counties of Waterloo and Wellington. While the Midwestern Region lost 5.1 per cent of its farmland between 1951 and 1966, the provincial total declined by 14.6 per cent.

The number of farms operated in 1966 was 2,850 less than in 1951, but the average size of farm increased during the period from 127.5 to 145 acres. The greatest loss in farms was in Huron County which also experienced the largest increase in average size of farm, indicating farm consolidation in the area.

At the same time, the total value of products sold in the Midwestern Region increased by more than 124 per cent between 1951 and 1966. All four counties registered an increase of at least 100 per cent. Significantly, the corresponding provincial increase was only 76 per cent.

Farm income in Midwestern Ontario appears to be considerably above the provincial average. Table 4.1 shows the percentage of farms whose value of products sold was either less than $2,500 or greater than $10,000 in 1961 and 1966. While 20 per cent of all farms in the Midwestern Region earned less than $2,500 in 1966, almost 36 per cent of farms in the Province were in that category. On the other hand, over 40 per cent of the Region's farms sold products valued at over $10,000 compared to only 27 per cent of those in the Province generally. On a county basis, farming in Waterloo County would appear to be the most prosperous; over 50 per cent of the farms there sold products valued at over $10,000.

Because of the variability of farm income from one area to another, and the need for agricultural planning policies to be

TABLE 4.1

PERCENTAGE OF COMMERCIAL FARMS CLASSIFIED BY ECONOMIC CLASS OF FARM, 1961 AND 1966

		Percentage of Farms Whose Value of Agricultural Products Sold Was		
		Less than $2,500	Greater than $10,000	Number of Farms
		%	%	
Huron	1961	27.2	18.3	5,052
	1966	19.7	37.5	4,565
Perth	1961	18.5	21.8	4,122
	1966	15.0	42.6	3,808
Waterloo	1961	26.5	36.1	2,435
	1966	21.6	50.3	2,239
Wellington	1961	30.8	20.0	4,005
	1966	24.8	35.5	3,768
Total, Mid-western Region	1961	25.7	22.4	15,614
	1966	20.1	40.3	14,380
Total, Province of Ontario	1961	42.6	15.8	121,333
	1966	35.6	26.7	109,887

Source: Derived from Statistics in Canada, Dominion Bureau of Statistics, Census of Canada, Agriculture, 1961 and 1966 (Ottawa; Queen's Printer), Table 15 and Table 14.

MIDWESTERN ONTARIO DEVELOPMENT REGION

AGRICULTURAL PRODUCTION PER ACRE BY TOWNSHIP, 1966

REGIONAL DEVELOPMENT BRANCH, DEPARTMENT OF TREASURY AND ECONOMICS
Source: Dominion Bureau of Statistics, Census of Canada, Agriculture, 1966

Figure 12

responsive to such diversities, an accounting procedure was used to determine the differences in net income for each county within the Midwestern Region. The results of these calculations are shown on Table 4.2.

It can be observed that all counties of the Region have a return per farm operator which is considerably above the provincial norm, with Waterloo County significantly above the other counties of the Region.

The most significant cash product in all four counties is livestock, accounting for 59 per cent of the total value of agricultural products sold in the Region in 1966. Dairy products and poultry and eggs are the two next major cash products, accounting for 17 per cent and 15 per cent respectively in 1966. The Midwestern Region also has some 120 fur farms, producing over 31 per cent of the Province's value of mink pelts in 1966.

In order to obtain an overall picture of the Region's agricultural productivity, an intensity map was developed (Figure 12) which shows that the highest production per acre occurs in Woolwich, Wilmot, Waterloo and Pilkerton townships. This is significant as these townships are in the midst of the "Golden Triangle". Since this area also generates the highest farm income and provides a ready market of agricultural produce to the most densely populated area of the Midwestern Region, a case can be made for retaining

TABLE 4. 2

FARM INCOME, MIDWESTERN ONTARIO REGION BY COUNTIES AND PROVINCE OF ONTARIO, 1965

	Huron	Perth	Waterloo ($,000)	Wellington	Ontario
Total Gross Income	58,388,000	52,604,000	40,957,000	47,368,000	1,239,575,000
Total Operating & Depreciation Charges	40,201,000	35,508,000	23,617,000	31,036,000	895,104,000
Total Net Income	18,187,000	17,096,000	17,340,000	16,332,000	344,471,000
6% Assumed Return to Capital	12,211,000	11,130,000	7,952,000	16,458,000	293,048,000
Return to Farm Operators	5,976,000	5,966,000	9,388,000	5,874,000	51,423,000
Total Number of Operators	4,565	3,808	2,239	3,768	109,887
Adjusted Number of Operators (1)	3,790	3,186	1,663	2,814	81,314
Value of Farm Capital	203,516,000	185,508,000	132,530,000	174,304,000	4,884,129,000
Return per Farm Operator (Units) in Dollars	1,309	1,567	4,193	1,559	468
Return per Adjusted Farm Operator (Units) in Dollars	1,577	1,873	5,645	2,087	632

(1) The number of Farm Operators was adjusted by weighting the total number of Farm Operators by total man-years worked.

Source: Regional Development Branch, Department of Treasury and Economics.

agriculture in an urban setting.

Although the area is not without its agricultural problems, there are healthy signs of farm consolidation and of greater intensity in the processing of food in the Region.

2. Mining and Quarrying

The Midwestern Ontario Region is an important producer of salt, cement, lime, sand and gravel, accounting for 13% of the total value in the Province in 1961. In 1966, the value of mineral production was approximately $29 million, an increase of 49.8 per cent from 1961.

Salt is the Region's only mineral in the non-metallic minerals category. The value of production exceeded $6 million in 1966 compared with $1 million in 1951 and accounted for almost 40 per cent of the Province's salt production. The industry is centred in Goderich where the Sifto Salt Division of Domtar Chemicals Limited has both a mine and brine well in operation. The mine has been in operation since the beginning of 1960.

Structural materials are the Region's most important group of mineral products with production valued at $22.8 million in 1965. The largest component of this group is cement, valued at $11.6 million in 1965 compared to $3.5 million in 1951. The 1965 value represented 22 per cent of the total output of cement in Ontario.

The basis of the cement industry is the large quantities of limestone indigenous to the Region. The St. Marys Cement Company operates a large quarry and clay pit on the outskirts of St. Marys and is one of the largest producers of limestone in Ontario.

Sand and gravel is another important component of structural materials. Production has been expanding in recent years mainly as a result of depletion of high-grade deposits near the larger metropolitan areas of Southern Ontario. Although production occurs in all counties of the Region, the largest workings are located in the Grand River Valley in the Kitchener area and in the Speed River Valley near Guelph.

Mining and quarrying, in themselves, do not contribute substantially to regional employment. In 1961, 384 persons were employed in this sector (0.2 per cent of the Region's labour force), more than half in Huron County.

3. Forestry and Fishing

Both forestry and fishing, as primary resource industries, appear to be relatively small in Midwestern Ontario.

The 1958 Forest Resources Inventory shows that there are approximately 274,600 acres of forested land in the Region, comprising some 12 per cent of total land in the Midwestern Region. Over 70 per cent is located in Huron and Wellington counties. Most of the forested land is hardwood, although Wellington County has a good

representation of mixed woods.

Much of the forested land is covered by young low-grade stands. In addition, it is scattered throughout the Region and the stands are relatively small. These factors often make it uneconomical for individual owners to carry on forestry operations.

Commercial fishing is carried out mainly from the Ports of Goderich and Bayfield. Total landings from these two ports (455,496 pounds in 1963) accounted for approximately 58 per cent of the total in the Region. In recent years the fishing industry has suffered from the effects of pollution and the lamprey eel.

4. Manufacturing

The Midwestern Ontario Region's location between the major markets of the "Golden Horseshoe" and the Windsor-Detroit complex, has led to the growth of a highly diversified complex of industries. With no major local natural resources other than agriculture, industrial activity in the Region consists largely of secondary manufacturing. With the exception of local farm produce for the food processing industries, most of the raw materials are brought in from outside the Region.

The selling value of goods shipped has grown steadily in the Region and in 1966 exceeded $1.3 billion, compared with $492 million in 1951. During the late 1940's and through the early

1950's, growth of manufacturing output lagged somewhat behind the Ontario average. However, this trend has since reversed and regional growth has more than matched that of the Province as a whole. By 1966, the Region's industrial production stood at 6.8 per cent of the Provincial total, compared with a post-war low of 5.7 per cent in 1954.

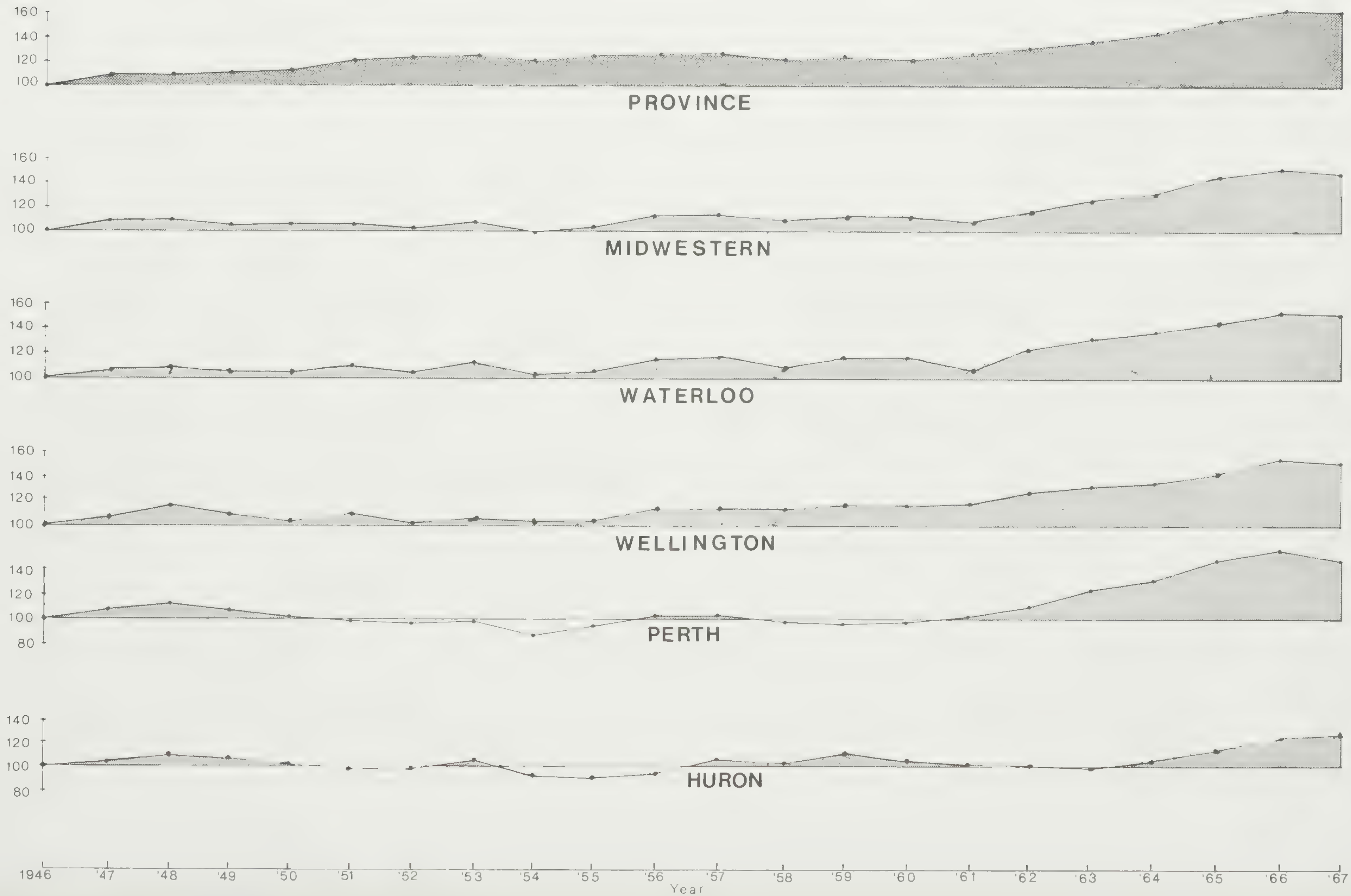
While the Region's total labour force increased by 20 per cent between 1951 and 1961, manufacturing grew by only four per cent. This moderate growth was primarily accounted for by the larger number of women employed in manufacturing -- 13,535 in 1961 compared with 11,815 in 1951, while the number of men remained virtually unchanged. As a result, the proportion of the Region's labour force engaged in manufacturing dropped from 38.8 per cent in 1951 to 33.6 per cent in 1961. This, however, was higher than the 1961 Provincial average of 26.9 per cent, indicating the Mid-western Region's industrial role.

Figure 13 is an index of manufacturing employment from 1946 to 1966 with the former year representing 100. Perth, Waterloo and Wellington counties all show substantial increases in manufact-uring employment, particularly in latter years.

Table 4.3 shows actual employment by County for 1961 and 1964 with estimates for 1968. Waterloo County is the dominant manufacturing area of the Midwestern Region, accounting for over 67

MIDWESTERN ONTARIO DEVELOPMENT REGION

INDEX OF TOTAL MANUFACTURING EMPLOYMENT 1946-1967 (1946=100)



REGIONAL DEVELOPMENT BRANCH, DEPARTMENT OF TREASURY AND ECONOMICS

Source - Dominion Bureau of Statistics.

Figure 13

per cent of total employment in this sector. Five centres, Galt, Guelph, Kitchener, Stratford and Waterloo have traditionally accounted for over 80 per cent of total manufacturing employment in the Region although in recent years this percentage has declined slightly.

Most of the firms in Huron County are relatively small. The major industrial groups which provide employment are the wood, food and beverages, metal and machinery and transportation equipment industries. These industries are responsible for 64 per cent of the employment in Huron County.

TABLE 4.3

EMPLOYMENT IN MANUFACTURING, BY COUNTIES AND MIDWESTERN ONTARIO REGION, 1961, 1964 AND 1968

	1961	1964	Estimate 1968	% Change 1961-1968
Huron	1,841	1,940	2,573	39.8
Perth	5,466	6,828	8,022	46.7
Waterloo	31,300	38,889	47,852	52.9
Wellington	9,028	10,139	12,812	41.9
Midwestern Ontario Region	47,635	57,796	71,259	49.6

Source: Canada, Dominion Bureau of Statistics, Manufacturing Industries, Sections D, G, 1961, Special Tabulations, 1964. MODA Industrial Directory, 1969.

The industries that are dominant in Huron County are

also generally the major employers in Perth County with some exceptions. The furniture and fixtures and rubber industries are important components of the industrial mix in addition to the food and beverages, transportation equipment and the metal fabricating and machinery industries.

Waterloo County has the greatest industrial diversity and thus provides opportunities in a greater variety of industrial groupings including metal fabricating, food and beverages, rubber, textile, machinery and transportation equipment industries. These industries account for approximately 60 per cent of total manufacturing employment in Waterloo County.

In Wellington County, electrical products and metal fabricating industries are dominant, accounting for 40 per cent of total manufacturing employment.

Table 4.4 shows county employment by industry groups for 1968.

(a) <u>The Relative Growth Performance of Manufacturing in the Midwestern Region.</u>

The rate of growth of manufacturing employment between 1961 and 1968 was faster in the Midwestern Region than in the Province generally. Perth and Waterloo counties had a faster than average rate of growth between 1961 and 1964, while Huron and Wellington Counties experienced relatively faster growth in the

TABLE 4.4

SELECTED MANUFACTURING STATISTICS BY INDUSTRY GROUP, MIDWESTERN ONTARIO REGION, 1968

Industry Group	HURON		PERTH		WATERLOO		WELLINGTON		MIDWESTERN REGION	
	Number of Firms	Employees	Number of Firms	Employees	Number of Firms	Employees	Number of Firms	Employees	Number of Firms	Employees
Food and Beverages	19	252	25	1,096	78	5,279	73	742	195	7,369
Rubber Industries	4	59	1	725	6	5,010	3	164	14	5,958
Leather Industries	3	211	1	67	28	3,261	4	205	36	3,744
Textile Industries	3	26	5	548	34	4,205	7	604	49	5,383
Knitting Mills	1	32	2	112	11	1,346	3	156	17	1,646
Clothing Industries	--	--	2	245	13	2,420	4	669	19	3,334
Wood Industries	6	434	5	55	29	735	11	255	51	1,479
Furniture & Fixtures	4	110	7	855	55	3,003	13	265	79	4,233
Paper & Allied Industries	--	--	3	320	6	341	4	285	13	946
Printing, Publishing & Allied Industries	3	77	3	118	40	218	29	170	75	583
Primary Metals	1	40	1	21	18	1,269	5	705	25	2,035
Metal Fabricating	11	239	22	949	143	6,432	39	2,197	215	9,817
Machinery Industries	7	336	12	782	40	3,992	4	1,061	63	6,171
Transportation Equipment	8	384	12	1,164	22	3,312	5	504	47	5,364
Electrical Products	--	--	7	291	21	3,695	16	2,932	44	6,918
Non-Metallic Mineral Products	5	33	6	268	22	1,024	9	523	42	1,848
Chemical & Chemical Products	5	141	2	78	13	812	4	183	24	1,214
Misc. Manufacturing Industries	7	199	7	326	56	1,498	14	1,194	84	3,217
TOTAL INDUSTRIES	87	2,573	123	8,020	635	47,852	247	12,814	1,092	71,259

Source: MODA Industrial Directory, 1968. Scotts Industrial Directory, 1968. Ontario Statistical Centre, Special Tabulations, 1968.

TABLE 4.5

RELATIVE GROWTH OF INDUSTRIES OF THE MIDWESTERN ONTARIO REGION, 1961 - 1964

County	Fast Growth	Slow Growth
Huron	Machinery Non-Metallic Minerals	Food & Beverages Leather Primary Metals
Perth	Textiles Machinery Transportation Equipment	Printing, Publishing Knitting Mills Wood Industries Paper & Allied Industries Primary Metals
Waterloo	Rubber Textiles Transportation Equipment Metal Fabricating Electrical Products	Food & Beverages Leather Knitting Mills Wood Industries Paper & Allied Industries
Wellington	Tobacco Furniture & Fixtures Transportation Equipment Non-Metallic Minerals Miscellaneous Industries	Clothing Paper & Allied Industries Rubber Leather Printing, Publishing

Source: Regional Development Branch, Department of Treasury & Economics.

1964 to 1968 period.

Table 4.5 shows the fast-growing industries in the Midwestern Region by county for the 1961 to 1964 period. Generally, those industries which grew fastest in the Region were the same industries that showed a fast rate of growth in Waterloo County--that is, the transportation equipment, miscellaneous, textile and rubber industries, respectively.

The slow-growth industries in the Region tend to be resource oriented. They include the food and beverages, leather, wood, knitting mills, and paper and allied industries.

The most significant change in the years 1964 to 1968 was in the paper and allied industries. Whereas four years earlier, they had been a slow-growth industrial group in the Midwestern Region, they now were growing faster than the average industrial growth rate of both the Region and the Province.

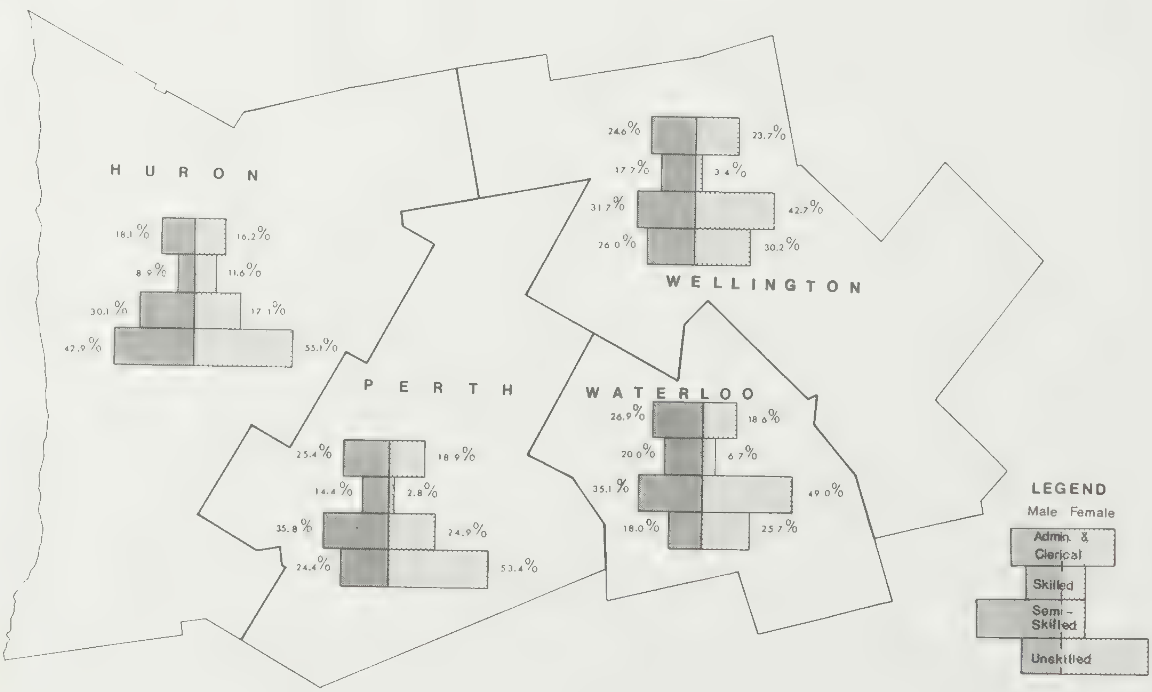
(b) Labour Force Skills

Figure 14 shows the male-female composition and various skill levels of the manufacturing sector by county. These breakdowns are based on a sample survey conducted in the Region in 1969 and 1970. The two more industrialized counties of Waterloo and Wellington each have a higher percentage of male employees in the skilled categories than in the Region generally, while Huron, the least industrialized county, has the smallest percentage. Huron

MIDWESTERN ONTARIO DEVELOPMENT REGION

EMPLOYMENT IN MANUFACTURING, MALE–FEMALE COMPOSITION, 1968

EMPLOYMENT IN MANUFACTURING, LEVEL OF SKILL, 1968



REGIONAL DEVELOPMENT BRANCH, DEPARTMENT OF TREASURY AND ECONOMICS

Source: Field Survey, 1969–1970

Miles 8 4 0 8 16

Figure 14

County also has the highest percentage of unskilled people. Generally speaking, the female labour force is concentrated in the production processes and consequently includes few skilled people. Most of the female labour in Waterloo and Wellington counties are classified as semi-skilled, while the greater proportion in Huron and Perth counties are unskilled.

Greater insight into the nature of labour force skills can be obtained from Figure 15, which shows the regional pattern by industrial groupings.

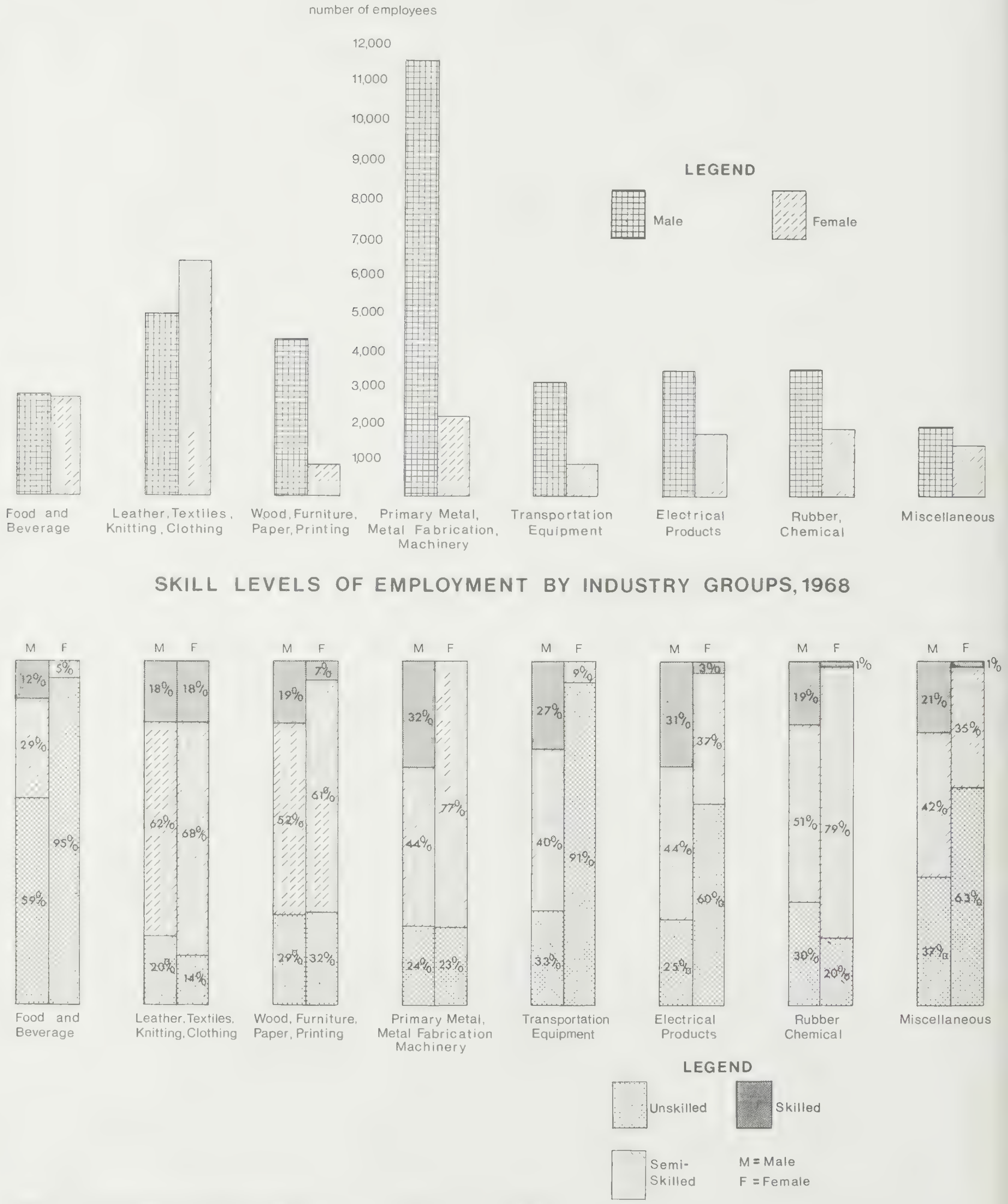
The food and beverage industry has a high concentration of unskilled people, particulary within the female component where some 95 per cent of the women in this industry are unskilled. In contrast, the leather, textile, knitting and clothing industries employ a high percentage of semi-skilled people in both the male and female components.

The major employers in the Region, the primary metal, metal fabrication and machinery industries, use a high proportion of male workers who are predominately skilled and semi-skilled people. The only other industry requiring this degree of skill is the electrical industry.

The food and beverage, leather, textile, knitting and clothing industries are the dominant female employers, while the wood and furniture, primary metal, metal fabricating, machinery and the transportation equipment industries are the dominant male employers.

MIDWESTERN ONTARIO DEVELOPMENT REGION

EMPLOYMENT BY INDUSTRY GROUPS, 1968



REGIONAL DEVELOPMENT BRANCH, DEPARTMENT OF TREASURY AND ECONOMICS
Source; Field Survey 1969-1970

figure 15

All four counties in the Midwestern Region showed increases in both production and administrative employees between 1961 and 1968. The percentage change in the number of production workers was fairly consistent with that of administrative employees for all counties except Huron. In Huron County the growth of administrative staff was greater than that of production workers between 1961 and 1968. The food and beverage industry may be largely responsible for this variation as it has shown a greater percentage increase in administration within the industry. This industry group also has high seasonal labour demands.

The field survey conducted in 1969 and 1970 also asked if labour shortages existed and in what job occupations. Table 4.6 is a tabulation of responses (in percentages) of those firms surveyed, stating whether or not shortages existed in the labour pool available to the area.

TABLE 4.6

SHORTAGES BY SKILL TYPES, MIDWESTERN ONTARIO REGION, 1968

	Unskilled		Semi-Skilled		Skilled		Administrative	
	Yes %	No %	Yes %	No %	Yes %	No %	Yes %	No %
Huron	21	78	39	57	26	70	9	87
Perth	39	61	39	52	61	35	26	61
Waterloo	15	81	37	54	61	28	17	70
Wellington	15	69	27	54	54	23	15	62
Region	22	74	36	54	54	36	17	69

Source: Field Survey, Regional Development Branch, 1969-1970.

This table should be related to Figure 14 in order to

visualize the effect of the industrial mix in each county and the various levels of skill used within this mix. Huron County utilizes the fewest skilled people and therefore the shortage of such people is not presently as acute as in the other counties. Manufacturers in the other three counties stated that there were definite shortages in skilled occupations. It is notable that manufacturers in Perth County report greater labour shortages than did any of the other counties in the Region.

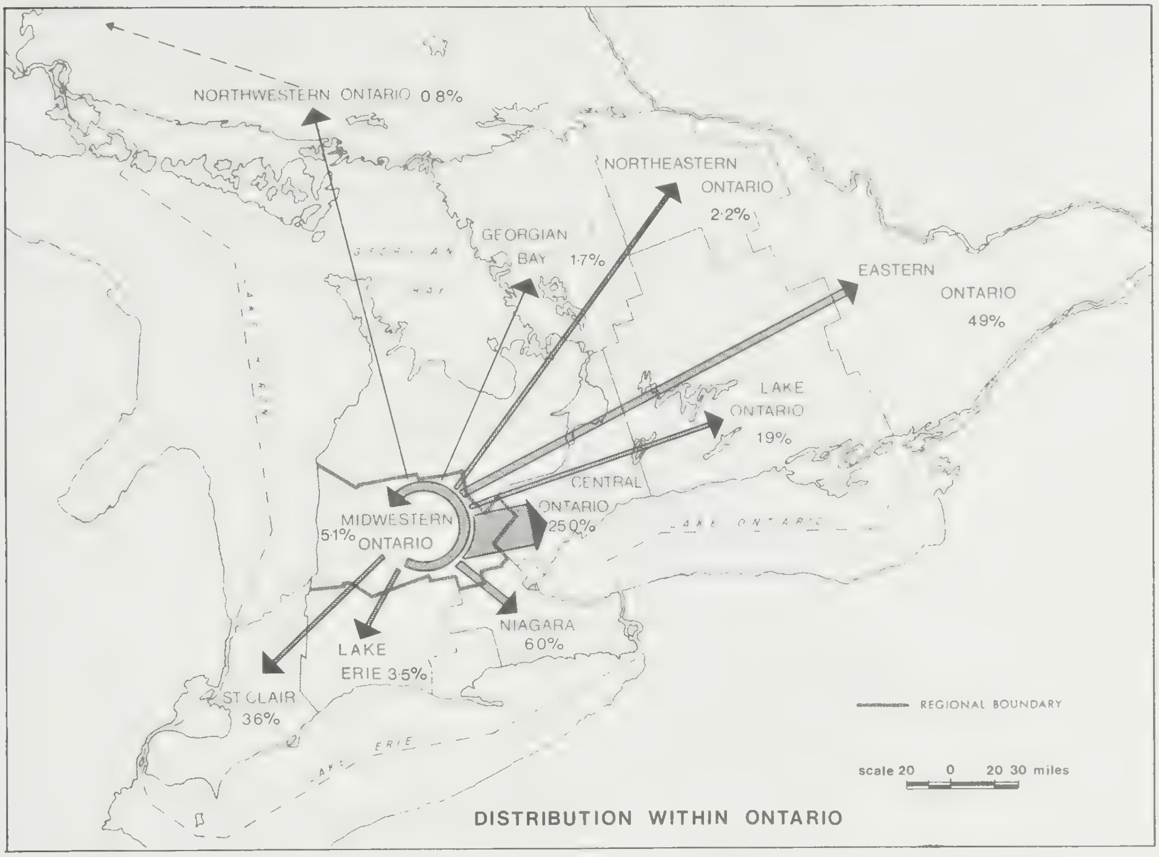
Job occupations where shortages are most acute include machine operators, welders, textile personnel, machinists, general maintenance people, electricians, mechanics, tool and die makers, cabinet craftsmen and qualified administrative staff.

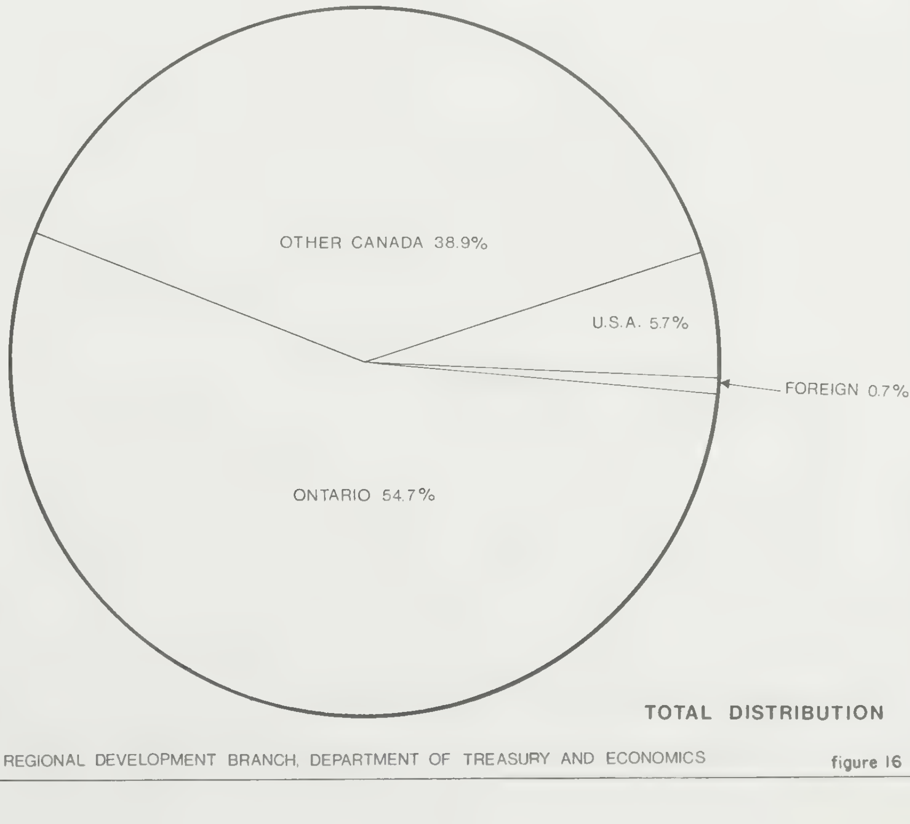
(c) Sources of Manufactured Inputs and the Distribution of Products

The growth of a given region is related to its capacity to attract industries that produce goods for export to other regions and other parts of the world. Theoretical and empirical findings to date stress the importance of export activity as a determining factor in regional economic growth.

In the survey of manufacturing conducted by the Regional Development Branch, manufacturers were asked to list by dollar value, the nature of their manufacturing inputs and sources of origin and the value and destination of their outputs. The data were then aggregated and an inter-regional flow matrix for inputs and outputs developed.

MIDWESTERN ONTARIO DEVELOPMENT REGION
SPATIAL FLOWS OF MANUFACTURING OUTPUT
(BY PERCENT OF TOTAL VALUE 1968)

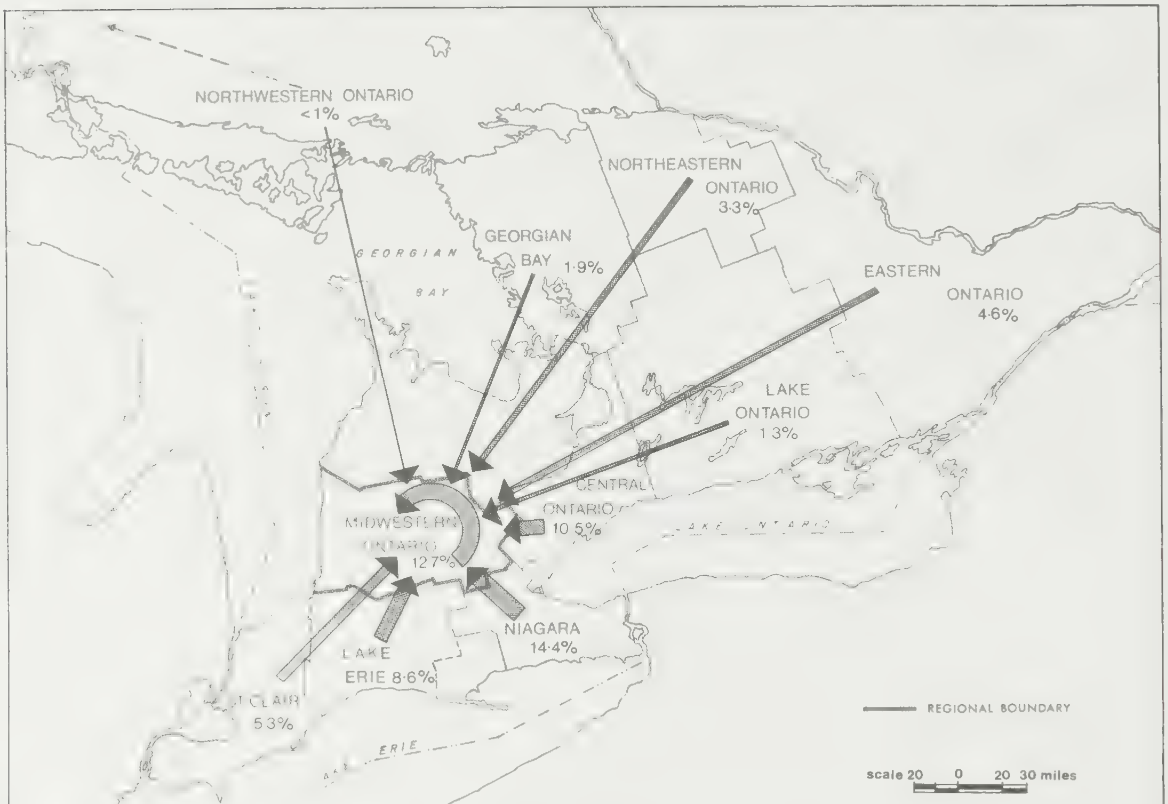




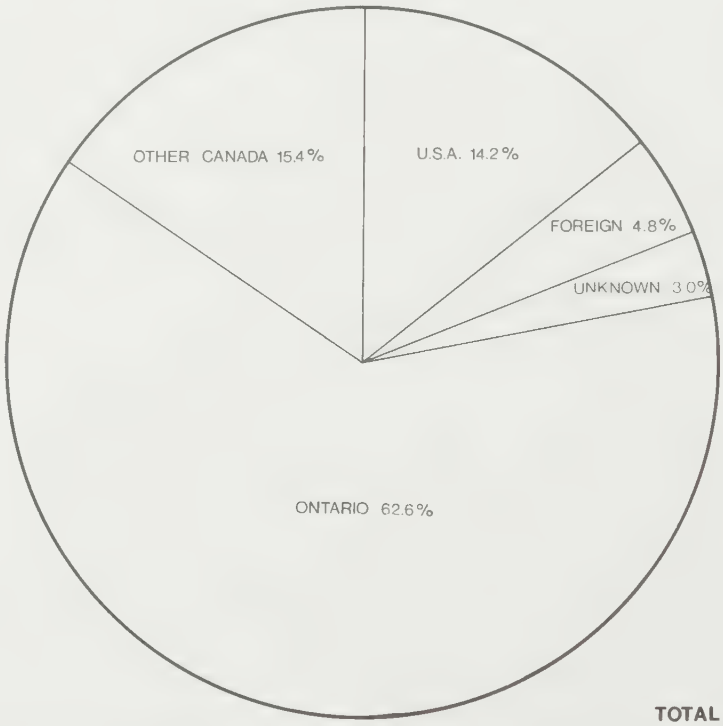
REGIONAL DEVELOPMENT BRANCH, DEPARTMENT OF TREASURY AND ECONOMICS

figure 16

MIDWESTERN ONTARIO DEVELOPMENT REGION
SPATIAL FLOWS OF MANUFACTURING INPUT
(BY PERCENT OF TOTAL VALUE 1968)



INPUT SOURCES WITHIN ONTARIO



TOTAL INPUTS

REGIONAL DEVELOPMENT BRANCH, DEPARTMENT OF TREASURY AND ECONOMICS

figure 17

Aggregate Markets For the Region as a whole, the spatial picture of output flows is represented in Figure 16. Flows to Central and Southwestern Ontario[1] accounted for over 45 per cent of the total value of manufactured outputs produced in the Midwestern Region. Only five per cent was consumed locally and 25 per cent went to the Central Ontario Region.

The other basic markets involved the major centres in the other provinces which received over one third of all manufactured outputs. Foreign purchasers received only six per cent of the total value.

Aggregate Sources of Inputs The flows depicted in Figure 17 indicate that only 13 per cent of all manufacturing inputs are derived locally. Ontario as a whole provides almost 63 per cent. Fifty-two per cent of the total manufacturing inputs emanates from Central and Southwestern Ontario as a whole. The Niagara and Central Ontario Regions provide 25 per cent of all Ontario's inputs into manufacturing in the Midwestern Region.

Of all inputs channelled into the Midwestern Region, 34 per cent is derived from outside of Ontario. Over 55 per cent of this comes from foreign countries.

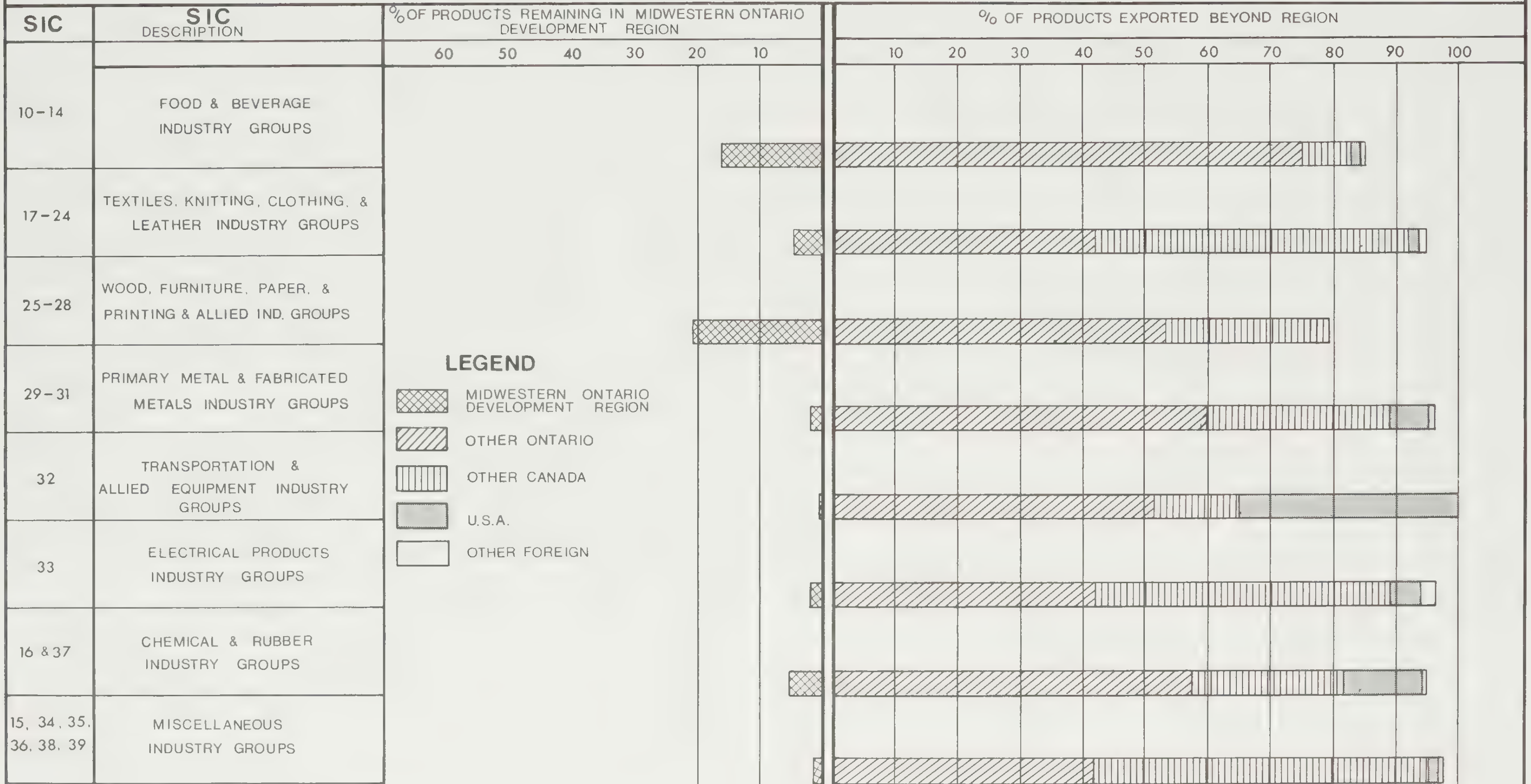
Sources of Inputs and Market Distribution by Major Industrial Groupings The aggregate pattern presented above clouds the distinct variations which occur by industrial groupings. Figures 18 and 19 show the market distribution of final products

---

[1]Central and Southwestern Ontario include the Niagara, Lake Erie, Lake St. Clair and Midwestern Ontario Regions and the Central Ontario Region.

figure 18

MIDWESTERN ONTARIO DEVELOPMENT REGION
DESTINATION OF MANUFACTURING OUTPUTS, BY S.I.C. GROUPS



Source:
REGIONAL DEVELOPMENT BRANCH, DEPARTMENT OF TREASURY AND ECONOMICS
Field Survey 1969-1970

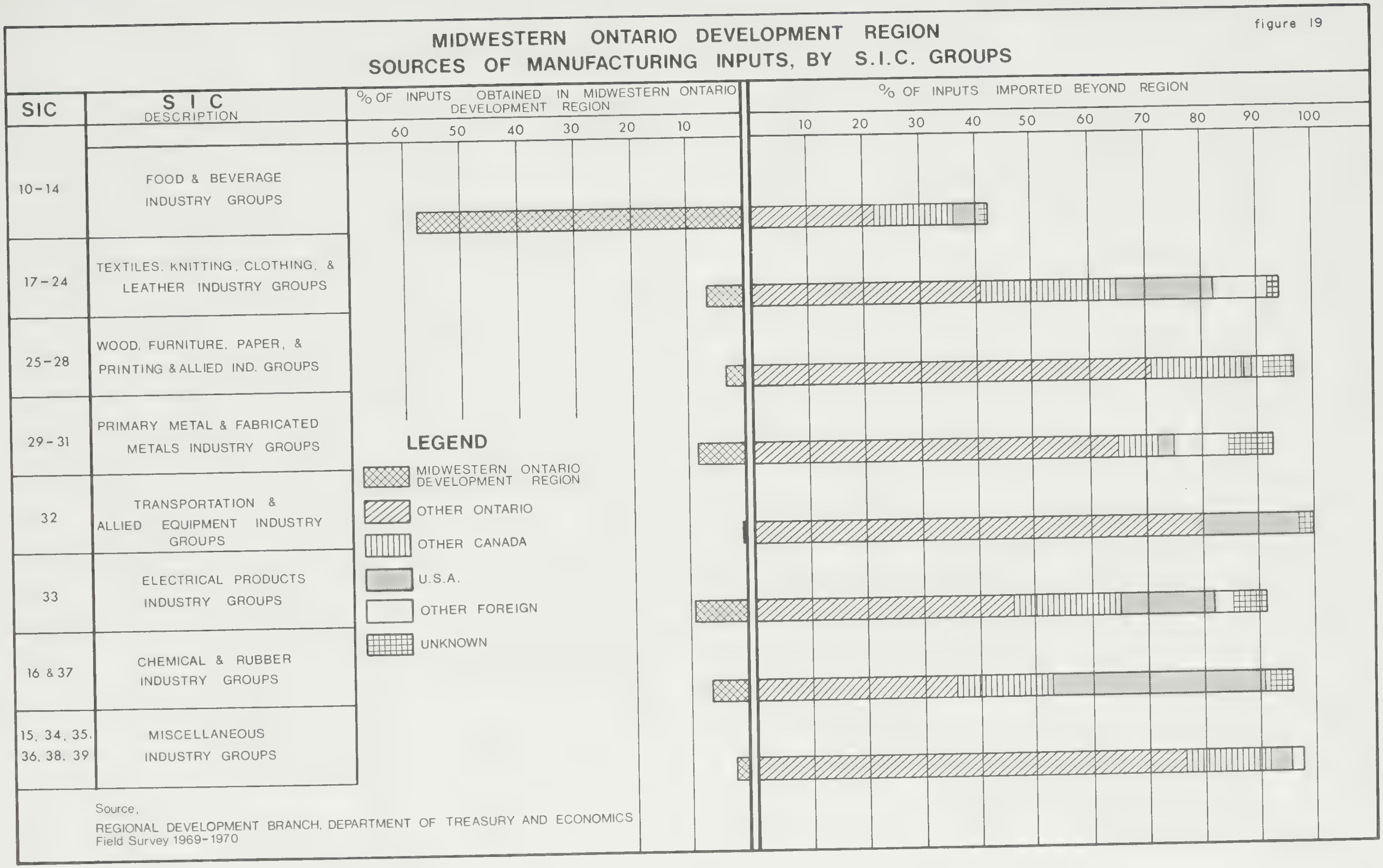


figure 19
MIDWESTERN ONTARIO DEVELOPMENT REGION
SOURCES OF MANUFACTURING INPUTS, BY S.I.C. GROUPS
SIC
S I C DESCRIPTION
% OF INPUTS OBTAINED IN MIDWESTERN ONTARIO DEVELOPMENT REGION
60 50 40 30 20 10
% OF INPUTS IMPORTED BEYOND REGION
10 20 30 40 50 60 70 80 90 100
10-14
FOOD & BEVERAGE INDUSTRY GROUPS
17-24
TEXTILES, KNITTING, CLOTHING, & LEATHER INDUSTRY GROUPS
25-28
WOOD, FURNITURE, PAPER, & PRINTING & ALLIED IND. GROUPS
29-31
PRIMARY METAL & FABRICATED METALS INDUSTRY GROUPS
32
TRANSPORTATION & ALLIED EQUIPMENT INDUSTRY GROUPS
33
ELECTRICAL PRODUCTS INDUSTRY GROUPS
16 & 37
CHEMICAL & RUBBER INDUSTRY GROUPS
15, 34, 35, 36, 38, 39
MISCELLANEOUS INDUSTRY GROUPS
LEGEND
MIDWESTERN ONTARIO DEVELOPMENT REGION
OTHER ONTARIO
OTHER CANADA
U.S.A.
OTHER FOREIGN
UNKNOWN
Source,
REGIONAL DEVELOPMENT BRANCH, DEPARTMENT OF TREASURY AND ECONOMICS
Field Survey 1969-1970

and the sources of manufactured inputs by industrial groupings.

The food and beverage industry groups and the wood, furniture, paper and printing and allied industrial groupings retain the greatest percentage of their product in the Region for local consumption.

Including local markets (15 per cent of the total dollar value of outputs) about 90 per cent of all outputs of the food and beverage group remains in Ontario.

The wood, furniture and fixtures, paper and printing and allied industrial groupings sell the largest value of products locally - over 20 per cent.

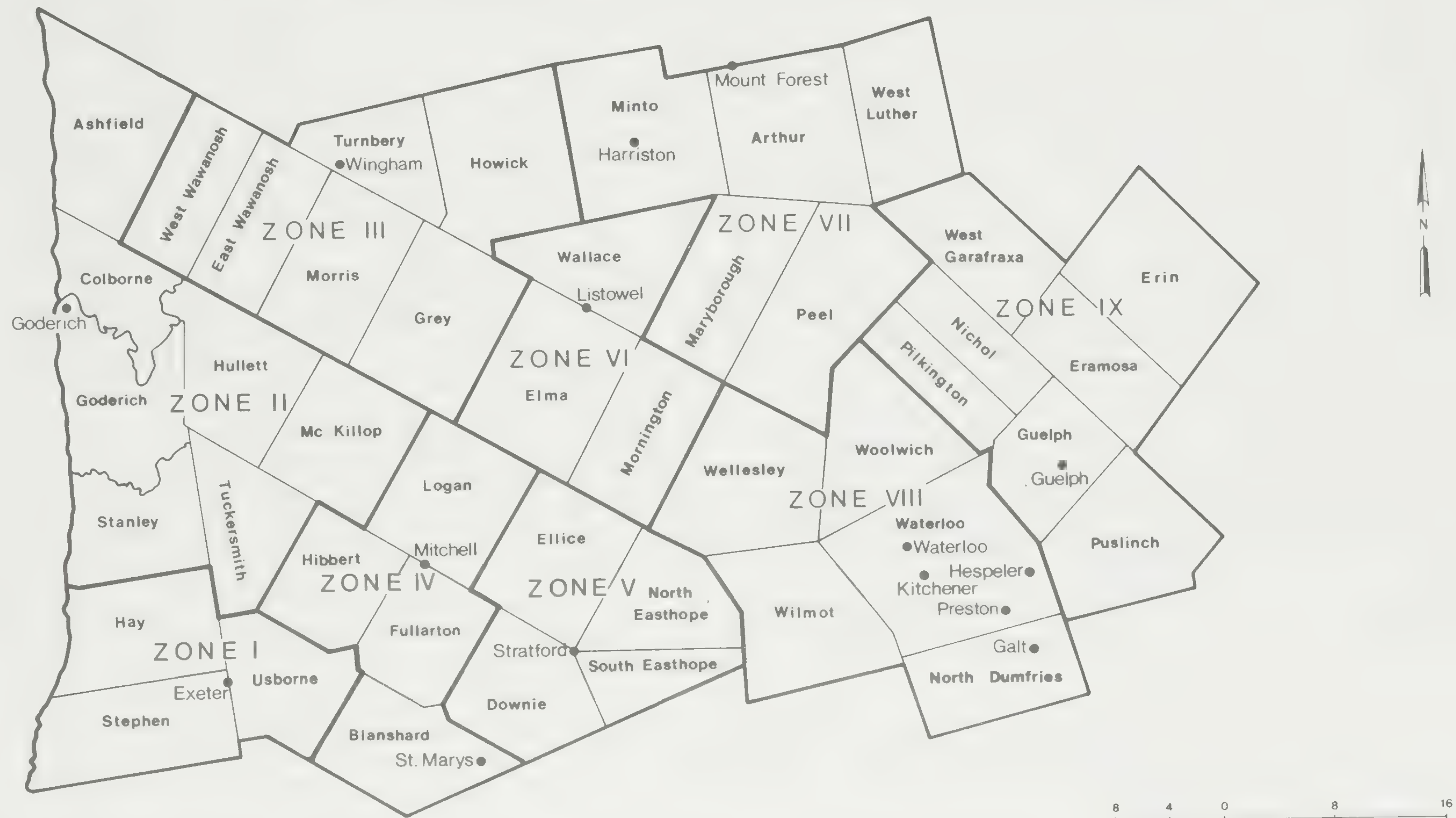
The food and beverage industry group is the only one that secures a significant percentage of its inputs locally, almost 60 per cent.

(d) Locational Factors

In the manufacturing survey, the manufacturers were asked to identify factors which they deemed to be favourable or unfavourable for the continuing operation of their establishment in its present location. The responses were aggregated by sub-regions which are, in essence, journey-to-work zones focusing upon a major urban centre(s) with final boundaries generalized to township boundaries (See Figure 20).

MIDWESTERN ONTARIO DEVELOPMENT REGION

JOURNEY-TO-WORK ZONES SHOWING CENTRES OF EMPLOYMENT



REGIONAL DEVELOPMENT BRANCH. DEPARTMENT OF TREASURY AND ECONOMICS

Figure 20

The one general problem affecting manufacturing location in the Region is the relative unavailability of skilled labour. Only in Waterloo County is skilled labour in adequate supply. This is explained by the high degree of urbanization there, particularly the major urban complexes of Kitchener-Waterloo and Galt-Preston-Hespeler. The best facilities for training skilled labour are located in these centres and, in addition, skilled labour tends to migrate there from elsewhere in the Region to participate in the relatively high wage rates in these centres. The solution to the shortage of skilled labour has two dimensions: (a) how to provide training facilities in areas where the problem is severe, and (b) how to retain in such zones whatever skilled people are already there.

On the other hand, the availability of unskilled labour is quite favourable in the more rural and less industrialized areas of the Region and, as such, attract industry types oriented to natural resources and/or the use of low-skill level. Urbanized areas, by contrast, find that unskilled labour is in short supply. The pattern of unskilled labour supply is highest in those rural areas where industries are utilizing seasonal, farm labour.

For the Region as a whole, the shortage of unskilled labour and its lack of an industrial tradition has had a significant negative effect on manufacturing location. Where low wages mean an unskilled labour force, the chances are very real that product-

ivity per worker is also low. A modern industry views wages as directly related to the productivity of a worker and his contribution to the industry's operations.

Communities which have low average wage levels probably have lost their better quality work force through migration to higher wage areas. The availability of a pool of qualified, skilled labour is apt to be more important to the growth of a region than the cost of labour alone.

Tables 4.7 and 4.8 rank the locational questions by sub-regions and for the Midwestern Region as a whole. Total costs of transportation were considered quite unfavourable for the Region generally and especially for the sub-regions focusing on Exeter, Mitchell and Goderich (I, II, IV). Yet accessibility to transportation, especially highways and rail services were quite favourable. Only in sub-regions III, IV and the northern part of Wellington County were highways, railways and air services considered inaccessible (which probably contributes to the unfavourable cost of transportation), though manufacturers in the Goderich and Stratford areas complained of poor air service.

Transportation studies might concentrate, therefore, on the adequacy of highways for the flows of manufacturing inputs and outputs, and on the structure and regional variation of freight costs associated with this.

TABLE 4.7

RANKED LOCATIONAL FACTORS FOR MANUFACTURING, FAVOURABLE ASPECTS, MIDWESTERN ONTARIO REGION AND SUB-REGIONS

	Total Midwestern Region	Sub-Region I	Sub-Region II	Sub-Region III	Sub-Region IV	Sub-Region V	Sub-Region VI	Sub-Region VII	Sub-Region VIII	Sub-Region IX
Proximity to good highways	1	1	1	5	6	2	2		2	6
Proximity to railway services	3	3	7		5	2	3		4	
Proximity to air services					7					
Proximity to water transportation										
Costs of transportation										
Proximity to natural resources			9		1			5		
Proximity to sources of manufactured inputs	7				2	8	3	3	3	7
Proximity to markets	2	3	7				1		1	
Availability of skilled labour								3		
Availability of unskilled labour	8		2		7			2	8	3
Attitude of trade unions	9	8		5	4	8			5	
Structure of wage rates		2	3	1	2		6			3
Development of utilities and services										
Water services	5	7		5		5	6	5	6	8
Electric power	6	3		5		6	6	5		8
Sewage disposal	4	6	10	5		7		5	7	8
Availability of land suitable for plant and availability of plants	10	9	6	4		1		1		1
Tax structure										
Local tax structure and incentives				3						2
Federal and Provincial tax structure		10		2		10				5
Availability of business services										
Cultural and recreational facilities			5			4	4		8	
Adequacy of housing			4				6			
Rental accommodation										
Owner accommodation (less than $15,000)										
Owner accommodation ($15,000 or more)										

Source: Field Survey, 1969 and 1970, Regional Development Branch.

TABLE 4.8

RANKED LOCATIONAL FACTORS FOR MANUFACTURING, UNFAVOURABLE ASPECTS, MIDWESTERN ONTARIO REGION AND SUB-REGIONS

	Total Midwestern Region	Sub-Region I	Sub-Region II	Sub-Region III	Sub-Region IV	Sub-Region V	Sub-Region VI	Sub-Region VII	Sub-Region VIII	Sub-Region IX
Proximity to good highways										
Proximity to railway services								2		
Proximity to air services	5		6			7				
Proximity to water transportation										
Costs of transportation	2	2	2		2				5	
Proximity to natural resources										
Proximity to sources of manufactured inputs		4	3	3						
Proximity to markets				2	5	7		1		1
Availability of skilled labour	1	1	1	1	1	1			1	
Availability of unskilled labour		3		5		2				
Attitude of trade unions			4							
Structure of wage rates									2	
Development of utilities and services										
Water services			7							
Sewage disposal					5		2			
Availability of land suitable for plant and availability of plants					3		1			
Tax structure										
Local tax structure and incentives					3					
Federal and Provincial tax structure	4		8						4	
Availability of business services			5	4	4					
Cultural and recreational facilities		5								
Adequacy of housing					3					
Rental accommodation	3									2
Owner accommodation (less than $15,000)									3	3
Owner accommodation ($15,000 or more)										

Source: Field Survey, 1969 and 1970., Regional Development Branch.

The system of air services in the area for the movement of manufacturing inputs and outputs should be examined in the light of future technological changes and potential reduction of costs of air transport vis-a-vis road.

Most urban centres in the Region have sought to attract industry through the provision of infrastructure. Since 1961, many new manufacturing locations in the study area responded to the availability of plants for purchase (especially true for United States subsidiaries). The success of the Centralia Industrial Park, in the former military base in Stephen Township, is an example of this.

For the Region as a whole, the availability of land for plant expansion is ranked low on the favourable scale. In major urban centres, there is limited space for the expansion of existing plants; however, municipally owned and serviced industrial parks with available sites for new plant locations are well distributed throughout the Region.

In terms of the provision of public utilities, sewage disposal appeared to pose a problem in the larger urban centres during the time of the survey (a reflection of the rapid urban-industrial growth of these sub-regions). Subsequently, the Stratford sewage treatment plant is being taken over by the Province and facilities expanded. The Waterloo sewage treatment plant now has adequate capacity since having solved its organic overload problem. Goderich has adequate plant capacity from an organic viewpoint; however, sewer

infiltration is causing a hydraulic overload problem.

Only 21 per cent of firms interviewed saw the present tax structure as unfavourable. In fact, 48.8 per cent found it was generally favourable.

Availability of business services and cultural and recreational facilities were generally considered favourable for most sub-regions.

Finally, housing as a whole was considered to be generally inadequate in the Region. Rental accommodation is especially emphasized and owner accommodation (less than $15,000) is poorly supplied in sub-regions VIII and IX. This emphasizes the problem of providing inexpensive single-family dwellings in the Region.

5. Construction

The Midwestern Region's construction industry experienced a notable expansion during the 1957-1966 period as reflected in the value of building permits issued which rose from $27.5 million in 1957 to $151.5 million in 1966. In 1961 more than six per cent of the Region's labour force was employed in this industry, a percentage comparable to the provincial average.

As can be observed on Table 4.9, construction activity, as measured by the value of building permits, has risen more rapidly in Waterloo and Wellington counties than in Huron and Perth. In fact, in 1966, over 90 per cent of the total value of building permits was issued in the former two counties. The real impetus in construction

TABLE 4.9

	TOTAL VALUE OF BUILDING PERMITS, BY COUNTY, MIDWESTERN ONTARIO REGION						VALUE OF RESIDENTIAL BUILDING PERMITS, BY COUNTY, MIDWESTERN ONTARIO REGION					
	1957 $000's	%	1961 $000's	%	1966 $000's	%	1957 $000's	%	1961 $000's	%	1966 $000's	%
Huron	478	1.7	2,382	4.5	4,966	3.3	286	1.8	1,143	4.8	691	1.4
Perth	4,333	15.7	6,109	11.5	7,737	5.1	945	6.0	1,597	6.7	3,504	6.9
Waterloo	17,808	64.8	38,220	71.8	91,151	60.2	11,630	73.8	16,793	70.8	36,114	71.0
Wellington	4,911	17.8	6,497	12.2	47,624	31.4	2,899	18.4	4,197	17.7	10,522	20.7
Total Midwestern Region	27,530	100.0	53,208	100.0	151,478	100.0	15,760	100.0	23,730	100.0	50,831	100.0

Source: Canada, Dominion Bureau of Statistics, Building Permits, 1957, 1961 and 1966.

activity began in Waterloo County in 1962 and in Wellington County in 1965.

6. Retail Trade

A rising population together with growing disposable incomes and a diversified economic base have contributed to an increase in retail trade in the Midwestern Region. In 1966, sales amounted to nearly $499 million compared to $334 million in 1961. Regional sales in 1966 represented 5.8 per cent of total provincial sales.

Table 4.10 shows the number of stores and employment in retail sector for 1951 and 1961, with estimates for 1968. While the total number of stores has increased, this has fairly well been restricted to the area of the "Golden Triangle". Employment in the retail trades is estimated at some 14,700 persons in 1968, a significant increase compared to the 1951-1961 decade. It would appear that population and the manufacturing sector received impetus during the 1951-1961 period while the services and trades sectors lagged behind. The latter sectors have experienced relatively larger increases in employment during the 1960's than in the previous ten-year period.

The attraction of certain centres providing retail functions for their own population as well as surrounding area can be observed from Table 4.11. The first seven ranked cities or complex of cities, that is from Listowel to Goderich, accounted for over 74 per cent of all retail sales in the Midwestern Region in 1966. This compared to 70 per cent in 1951, showing the increasing importance of these

TABLE 4.10

NUMBER OF RETAIL STORES AND EMPLOYMENT,
BY COUNTY, MIDWESTERN ONTARIO REGION

	Number Of Stores			Employment		
	1951	1961	Estimated 1968	1951	1961	Estimated 1968
Huron	609	599	569	1,055	1,270	1,360
Perth	627	614	599	1,713	1,695	1,665
Waterloo	1,264	1,446	1,887	4,605	6,111	8,718
Wellington	788	831	913	2,093	2,498	2,958
Total Midwestern Ontario Region	3,288	3,490	3,968	9,466	11,574	14,701

Source: Canada, Dominion Bureau of Statistics, Census of Canada, Service Trades, (Ottawa: Queen's Printer, 1951 and 1961).

TABLE 4.11

PER CAPITA RETAIL SALES BY URBAN CENTRE, MIDWESTERN ONTARIO REGION, 1966

Centre	Trade Area Population	Retail Sales ($000's)	Sales Per Trade Area Population
Listowel	13,882	13,091.8	943
Kitchener-Waterloo	220,568	168,464.1	764
Exeter	9,274	7,027.7	763
Galt-Preston-Hespeler	85,048	60,177.6	708
Guelph	98,772	69,667.0	704
Stratford	54,675	38,381.0	702
Goderich	20,628	14,315.5	694
St. Marys	12,149	8,301.6	683
Mount Forest	8,601	5,828.6	678
Wingham	8,707	5,709.5	656
Clinton	9,481	5,599.3	591
Mitchell	8,228	4,178.9	508
Seaforth	9,315	4,673.7	502
New Hamburg	16,387	6,064.1	370
Fergus	20,966	6,709.2	320
Elmira	23,922	5,907.7	247

Source: Field Survey, Regional Development Branch, 1969 and 1970.
Canada, Dominion Bureau of Statistics, Advance Bulletin of Census of Retail Trade, 1966.
Canada, Dominion Bureau of Statistics, Census of Canada, Population, 1966.

centres as retail outlets.

7. Community, Business and Personal Services

(a) The Midwestern Ontario Region

In 1961, the labour force of the Midwestern Region contained 23,774 persons in community, business and personal services. This represented over 16 per cent of the Region's labour force. In contrast, the Province generally had approximately 20 per cent of its labour force engaged in these service trades. Almost 50 per cent, or 11,852 persons, were engaged in community services as distinct from personal or business services.

Distinct patterns emerge from the percentage distribution of selected service receipts (See Table 4.12). Percentage expenditures on amusement and recreation are highest in Huron County, possibly resulting from the intensive cottage development along the Lake Huron shoreline. Business services are predominant in Waterloo County, indicative of the degree of commercial and business activity of the Kitchener-Waterloo area. Repair services appear to be highest in the more rural counties of the Region. Lastly, the influence of the Shakespearean Festival in Stratford appears to dominate the expenditure patterns with regard to accommodation and eating places. Of total receipts in the selected services, accommodation and restaurants account for more than 50 per cent of expenditures.

TABLE 4.12

RECEIPTS IN SELECTED SERVICES, BY COUNTY, MIDWESTERN ONTARIO REGION, 1966

		Huron	Perth	Waterloo	Wellington	Province Of Ontario
Total Receipts ($000's)		5,698.8	8,406.7	39,320.9	12,554.5	1,839,281.4
Amusement and Recreation	%	13.4	7.7	10.2	8.9	11.4
Business Services	%	2.9	4.2	9.9	3.6	13.8
Personal Services	%	15.9	15.8	19.2	16.8	13.6
Repair Services	%	4.3	2.6	2.1	8.3	1.4
Hotel, Tourist Camp and Restaurant	%	54.6	61.3	48.8	55.6	45.7
Miscellaneous Services	%	8.9	8.4	9.8	6.8	14.1
Total	%	100.0	100.0	100.0	100.0	100.0

Source: Canada, Dominion Bureau of Statistics, Census of Canada, Service Trades, 1966, (Ottawa: Queen's Printer), Table 5.

The service trades lagged behind in the Region's development during the 1950's. There is evidence that improvements had been considerable during the 1960's. For example, between 1961 and 1966, total receipts increased by 61 per cent in the Region compared to over 56 per cent in the Province generally. This was a better performance than shown in the 1951-1961 decade where the Region's increase in service receipts was 82 per cent compared to a provincial norm of 105 per cent.

(b) The "Golden Triangle"

An examination of the major trade sectors in the "Golden Triangle" indicates a structuring of functions (See Table 4.13) Certain patterns emerge from an analysis of the sales volumes, percentage changes over the given years, and the percentage distribution of each trade function by centre.

Kitchener is the dominant wholesaling centre, although significant increases are apparent in Galt and Preston. This could be the result of closer proximity to Highway 401.

In the retail trades, no centre appears to be dominant, although Waterloo has the greatest percentage of its trade activity in the retail sector and has demonstrated significant increases between 1961 and 1966. This probably reflects the university activity in that centre.

TABLE 4.13

TRADE SECTORS, TOTAL RECEIPTS AND PERCENTAGE CHANGE, "GOLDEN TRIANGLE"

		Retail Trade Sales, 1966	Per Cent Change 1961-1966	Service Trade Receipts, 1966	Per Cent Change 1961-1966	Wholesale Trade Sales, 1961	Per Cent Change 1951-1961	
Galt	$000's	42,595.4	57.3	4,782.2	60.5	14,819.9	209.8	
	%	(68.5)		(7.7)		(23.8)		(100.0)
Guelph	$000's	69,667.0	48.1	9,018.1	56.1	18,758.3	67.8	
	%	(71.5)		(9.3)		(19.2)		(100.0)
Kitchener	$000's	129,261.0	40.7	19,620.8	60.9	75,158.4	62.4	
	%	(57.7)		(8.8)		(33.5)		(100.0)
Preston	$000's	13,553.1	69.4	2,543.4	48.2	2,559.1	893.8	
	%	(72.7)		(13.6)		(13.7)		(100.0)
Waterloo	$000's	39,203.1	166.2	6,365.2	187.0	4,054.2	-17.0	
	%	(79.0)		(12.8)		(8.2)		(100.0)

Sources: Canada, Dominion Bureau of Statistics, Census of Retail Trade, 1961 and Advanced Bulletin of Census of Retail Trade, 1966, (Ottawa: Queen's Printer, 1961 and 1966).
Canada, Dominion Bureau of Statistics, Census of Canada, Wholesale Trade, 1951 and 1961 (Ottawa: Queen's Printer), Tables 5, 7 and 8.

In summary, Kitchener appears to be the dominant wholesale trade centre for the "Golden Triangle". In addition, although it is the largest retail centre in this area, it accounted for considerably less than half of the total retail sales of the "Golden Triangle" in 1966. Kitchener and Guelph are the main centres of service activity.

CHAPTER V

TRANSPORTATION

A good road system is vital to a region's economy. Policies concerning road construction and routing have a far-reaching influence on the pattern of economic development. For example, cities such as Kitchener-Waterloo and Galt-Preston-Hespeler are serviced by four-lane highways and have freeway access to London and Toronto; many manufacturing activities are being attracted to the Highway 401 corridor rather than to the western and northern parts of the Region.

Figure 21 shows the major highways and railways in the Midwestern Ontario Region. The network of roads and highways in the Region is one of the most dense in the Province. Urban and rural areas are serviced with a road transportation system which totals nearly 7,000 miles and generally ranges in condition from good to excellent. Organized township roads account for 62 per cent of the total mileage, county roads for 17 per cent and the remaining 8 per cent, or 572 miles are King's Highways.

Figure 22 gives an elementary indication of the accessibility pattern which these routes create. Thus the impression of "local accessibility," the ease with which one may travel within an area, and the fact that certain areas are more accessible

TRANSPORTATION FACILITIES AND NETWORKS

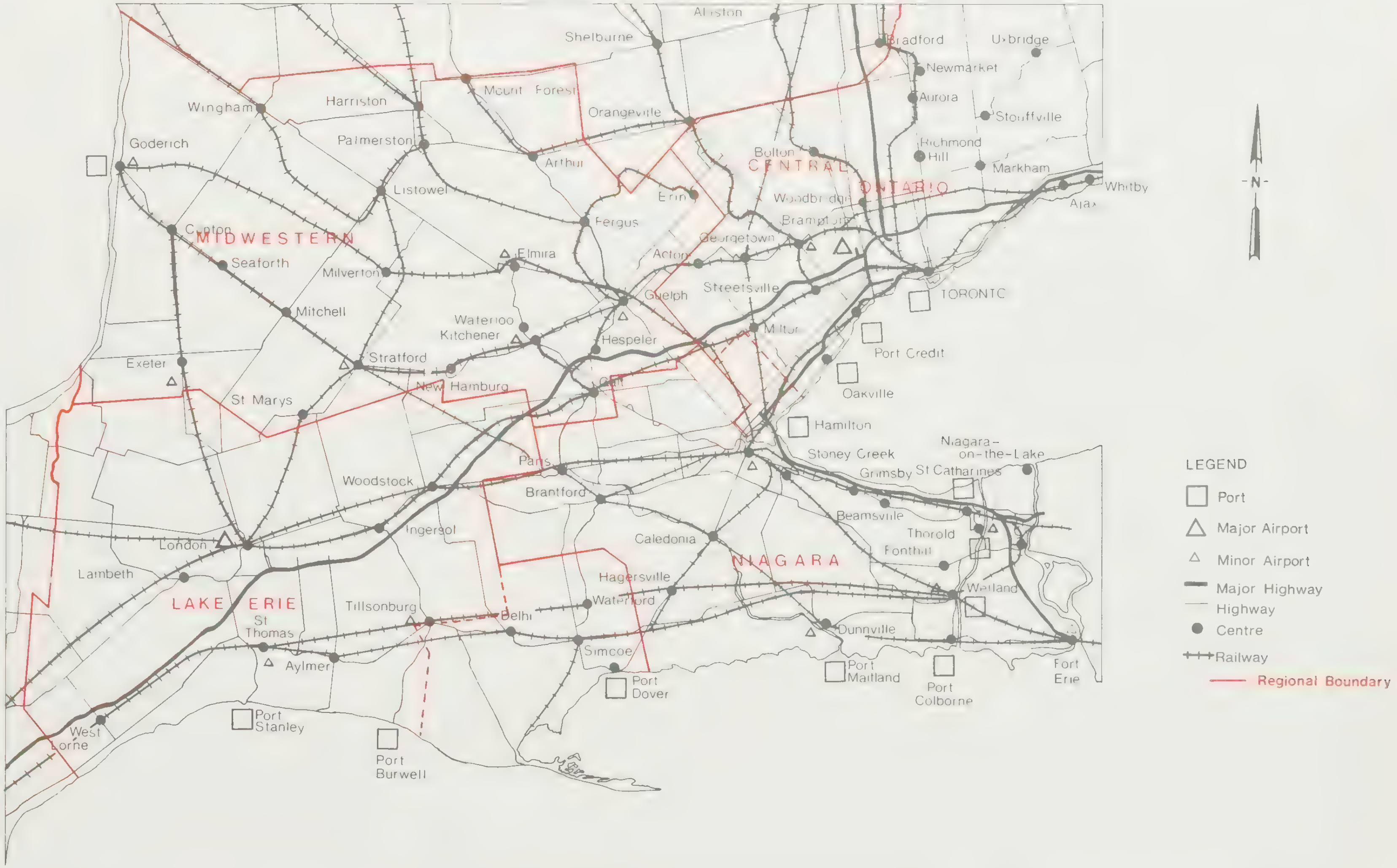
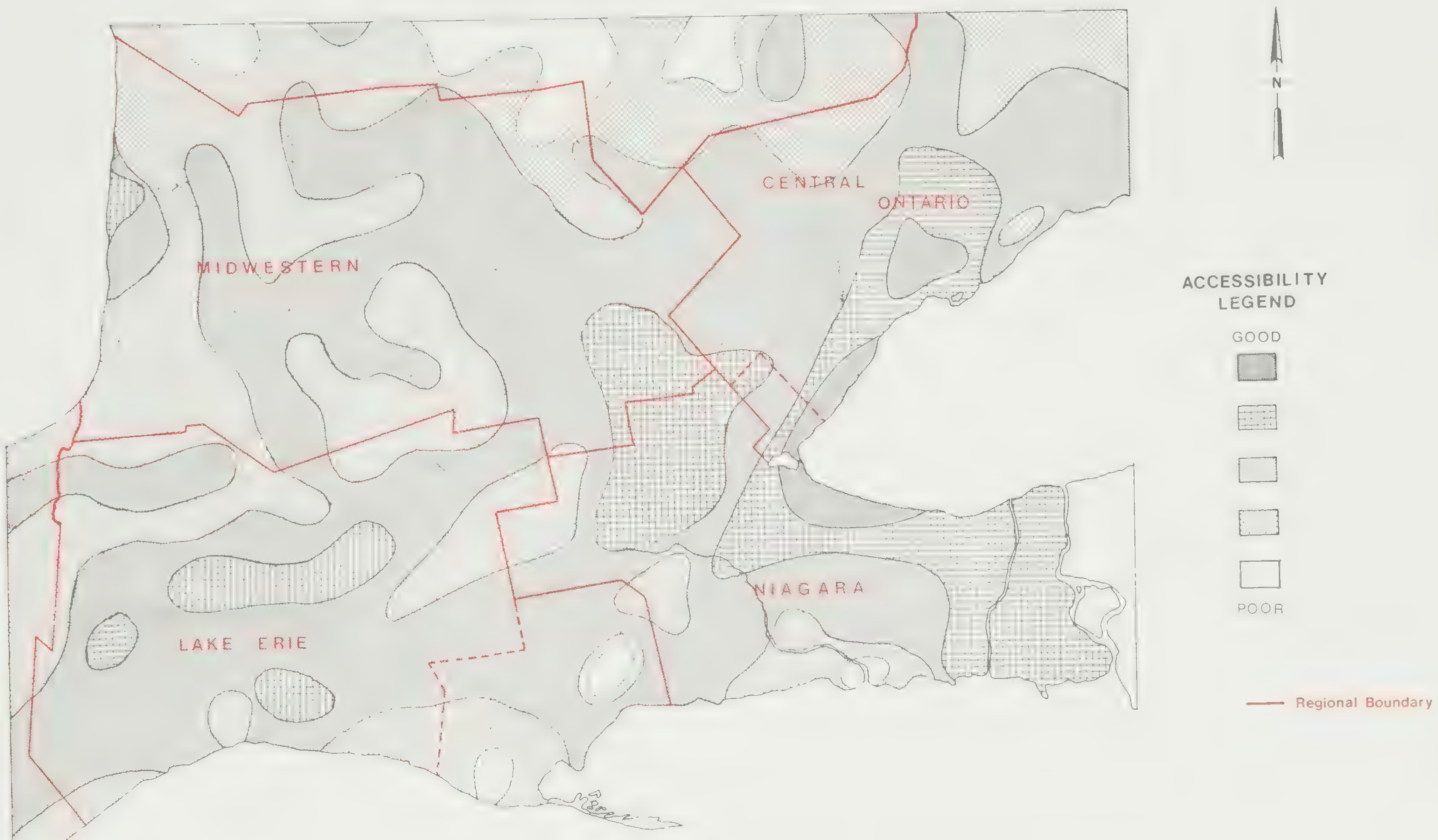


figure 21

ACCESSIBILITY BASED UPON ROUTE INTENSITY



REGIONAL DEVELOPMENT BRANCH DEPARTMENT OF TREASURY AND ECONOMICS
Source Economic Atlas of Ontario Plate 85

figure 22

than others, may be clearly seen. It should be noted, however, that a measure of accessibility must be related to the needs of any particular area before it can be meaningful for planning purposes.

Because the highways link all the major centres with each other and with the large, nearby metropolitan areas of Toronto, Hamilton and London, they carry the highest traffic volumes and consequently demand the greatest attention and expenditure in the form of maintenance, modernization, traffic safety devices, etc.

Major projects undertaken in recent years include the Conestoga Freeway in Kitchener and Waterloo, the four-lane section of Highway 24 linking Galt with Highway 401, the rebuilding program of Highway 4 between Clinton and London, the Hanlon Expressway in Guelph, the St. Marys by-pass of Highway 7, the rebuilding of Highway 23 between Mitchell and Palmerston and of Highway 89 between Palmerston and Mount Forest, and the upgrading of Highway 8 between Stratford and Goderich.

Highway 401 has carried an increased average number of vehicles per day in every year since its opening. The highway's capacity is such, however, that no major problems are anticipated for at least a decade, assuming the continuation of present trends.

Other highways in the Region which have recorded above average growth in utilization are mainly those accommodating the

ever expanding number of commuters to the urban centres and those leading to recreational areas such as the shores of Lake Huron: (i) Highway 85 connecting Kitchener-Waterloo with suburban areas such as St. Jacobs and Elmira; (ii) Highway 83 which leads to the camping, cottage and beach area around Grand Bend; (iii) Highway 21 connecting Detroit and Sarnia with the Huron lakeshore; and (iv) Highway 86, another major traffic route to Lake Huron's recreational facilities.

Trucking The Region's extensive and excellent system of roads and highways has contributed in no small manner to the development of trucking operations as a most important method of transporting goods and materials. Figure 23 summarizes the relationship between truck transportation rates and road hours from Toronto. All parts of the Region are within two or three hours driving time of Toronto. Significantly, the map shows that truck transportation rates are nearly concentric and that they increase with increasing distance from Toronto.

The survey of manufacturers (discussed in Chapter IV) revealed that good accessibility to Toronto was an important consideration for many manufacturers in the Region who depend upon the Toronto area as a major source of natural inputs and as a market for their final outputs.

The services of 45 companies assure the Region's business establishments rapid access to all centres within Ontario, while

ROAD HOURS AND TRUCK TRANSPORT RATES FROM TORONTO

REGIONAL DEVELOPMENT BRANCH, DEPARTMENT OF TREASURY AND ECONOMICS

Source: Economic Atlas of Ontario, Plate 94. N.C. Field and D.P. Kerr Geographical Aspects of Industrial Growth Metropolitan Toronto Region Regional Development Branch, 1968

figure 23

11 companies provide interprovincial trucking facilities and five firms connect the Region directly with the United States. In addition, numerous enterprises specialize in short haul operations among all counties in the Region.

Freight Service CPR operations within the Region stress way-freight. Two lines carry an average of at least four freight trains per week, connecting Guelph with Goderich and Hamilton. The Orangeville-Arthur-Mount Forest-Harriston-Wingham and the Erin-Fergus-Elora runs are serviced only when full cars are required. An average of ten freight trains (over half are through traffic) per day travel through the Region on the main Toronto-Windsor line. Switching service and a piggyback terminal are provided at Galt.

Of special interest to local railway traffic demands are the freight operations maintained by two CPR subsidiaries, the Grand River Railway Company and the Lake Erie and Northern Railway Company, both in Preston. There is one run each way per day from Preston to Hespeler, Preston to Galt to Paris, Preston to Galt to Simcoe, Preston to Galt to Brantford. There two runs each way per day from Preston to Waterloo. The CP Express' main distribution centre for the Region is Preston. Express freight services, by CNR or CPR, are available in all major cities, including those not on a railroad.

The main CNR line traverses the Region, providing freight services along the following lines: (i) Guelph-Palmerston-Owen Sound;

(ii) Guelph-Palmerston-Southampton; (iii) Stratford-Listowel-Wingham-Kincardine; (iv) Stratford-Goderich; (v) London-Exeter-Clinton; (vi) Kitchener-Elmira; (vii) Brantford-Stratford.

Switching and distribution service is provided at Goderich Stratford, Palmerston, Kitchener and Guelph. Piggyback terminals integrating rail and highway transportation grids serve intra-regional and interregional needs and are located at Stratford, Guelph and Kitchener. Spur lines and sidings from the main railway lines are being built whenever needed to accommodate new industrial park developments, i.e. in Kitchener, Preston, Galt and Stratford.

Passenger Service The main CPR line in the Region (Toronto-Galt-Windsor) has one train each way per day. The main CNR line (Toronto-Guelph-Stratford-London) has an average of four trains each way per day. The CNR also has four other passenger runs in the Region. Each of these averages one train per day each way: (i) Guelph-Fergus-Palmerston-Southampton; (ii) Guelph-Fergus-Palmerston-Owen Sound; (iii) Stratford-Listowel-Wingham-Kincardine; (iv) Stratford-Goderich.

The CNR has applied for discontinuance of all of the above passenger services, except for two runs per day on the Toronto-Guelph-Stratford-London line. Public hearings were held in Owen Sound on March 31, 1970, and in Guelph on April 8, 1970.

Bus Service The Region is serviced by three major bus companies. Gray Coach Lines Ltd. has three main routes in the eastern, northern and southern parts of the Region. Charterways Bus Line of London operates three main routes through the western part of the Region. In addition, Zimmer's Bus Line runs a commuter service between Stratford-Mitchell-Seaforth-Clinton and Goderich.

Air Transportation The Region is well endowed with a variety of airports to meet local commercial, industrial and recreational needs. In addition, the Region is in close proximity to the larger airports of Toronto and London.

At present little use is made of air as a carrier of freight, except for "rush" orders. The airport facilities at Toronto or London are generally used for this purpose.

Should the need arise, many of the facilities at the Regional airports can be expanded to accommodate future increased demand.

Water Transportation This mode of transport is limited to the Region's one major commercial harbour at Goderich.

A $700,000 dredging program carried out in the early 1960's resulted in an overall harbour depth of 23 feet and the removal of Ship Island, previously a serious obstacle to vessel movement.

Traditionally, Goderich has been storage and distribution point for grains and grain products entering Ontario from Western Canada. Until recently, these commodities constituted the bulk of all cargo handled. For storage purposes during the winter months as many as 35 barges can be accommodated in the harbour.

With the intensive production of salt beginning in 1960, the composition of commodities handled at the Goderich Port changed drastically. As can be seen from Table 5.1, salt accounted for less than one per cent of total cargo loaded and unloaded in both coastwise and foreign shipping in 1957. By 1967, this proportion had grown to about 60 per cent. The change resulted from two factors; the increased production of salt in the Region and the decreased imports of western grains as farmers in the Region began to raise more of their own animal feeds.

TABLE 5.1

CARGO HANDLED AT GODERICH HARBOUR, 1957 and 1967

Commodity	% of Cargo Handled 1957	1967
Wheat	41	15
Barley	19	9
Oats	28	8
Corn	-	5
Coal & Petroleum	5	1.5
Salt	1	60
Other Freight	6	1.5
	100%	100%

Source: Canada, Dominion Bureau of Statistics, Shipping Report.

The traditional relation of foreign and coastwise shipping has also been disrupted over the past few years. In 1957, the volume of cargo handled in coastwise shipping was about seven and one-half times as much as that in foreign shipping; ten years later, foreign cargo represented 43.7 per cent of the total volume. This shift has resulted from increased exports of salt to the United States.

The same trend is reflected in the actual number of ships arriving and departing. In 1959, 33 vessels arrived and departed in international seaborne shipping, representing a net registered tonnage of 87,986. In 1967, there were 111 vessels totalling 592,333 registered net tons. Coastwise shipping has remained stable over the same period.

Increased production of salt for export may be expected to enhance the importance of the port to the Region's economy. The impact of the port will be even greater should it be utilized as a break-of-bulk point for the manufacturing of agricultural and other products using the raw materials involved in international and coastwise trade.

Future Improvements

Current provinical transportation studies and data being assembled by the Waterloo-South Wellington Area Planning and Development Study will provide a basis for a comprehensive future transportation system for the Region. In addition, the regional

development plan for the Toronto-Centred Region and the resulting transportation systems will exert a major influence in the Waterloo-South Wellington Area.

Current Department of Highways Project Proposals

Extension of Hanlon Expressway (Guelph Area) This expressway would link the St. Clair Road to Highway 401, approximately 2 3/4 miles west of the present interchange of Highway 401 and Highway 6. The extension would be a four-lane divided highway with access only at County Road 34 and the fourth concession, Puslinch Township. The expected completion date of the entire expressway would be in the mid to late 1970's.

The Highway 8 By-Pass of Preston and Galt The proposed four-lane divided highway with controlled access by-pass would start in Kitchener at the top of Freeport Hill. From there it would run south, crossing the Grand River in Preston on the flats east of Blair, skirt the western and southern city limits of Galt, crossing the Grand River again south of Galt, and then join Highway 8 southeast of Galt. Seven whole or partial cloverleafs are proposed.

Both of these proposals must receive confirmation by the Waterloo-South Wellington Area Study and the Department of Highways Planning Study for the area.

London to St. Marys Highway The London Area Highway Planning Study recommended a new direct arterial highway north-easterly from London to St. Marys to connect with the St. Marys by-pass of Highway 7 to Stratford. This will provide a consolidated service to several significant traffic flows which must at present travel routes involving greater time and mileage per trip. This new highway will tie in with the proposed London-Sarnia Freeway, the Macdonald Cartier Freeway and the London-St. Thomas Freeway.

CHAPTER VI

PHYSICAL LAND CAPABILITY

The Midwestern Ontario Region Land Capability Analysis Map (Figure 24) illustrates the general pattern of regional resource potential and the implications for regional development.[1] The following description of the Midwestern Ontario Region's land capability highlights a number of regional development issues:

(a) A high proportion of the Region, characterized by single predominant resource capabilities, presents limited potential conflict between competing land uses.

(b) With 24 per cent of the Province's Class I agricultural land, the Region is well endowed for agricultural specialization. (Figure 25)

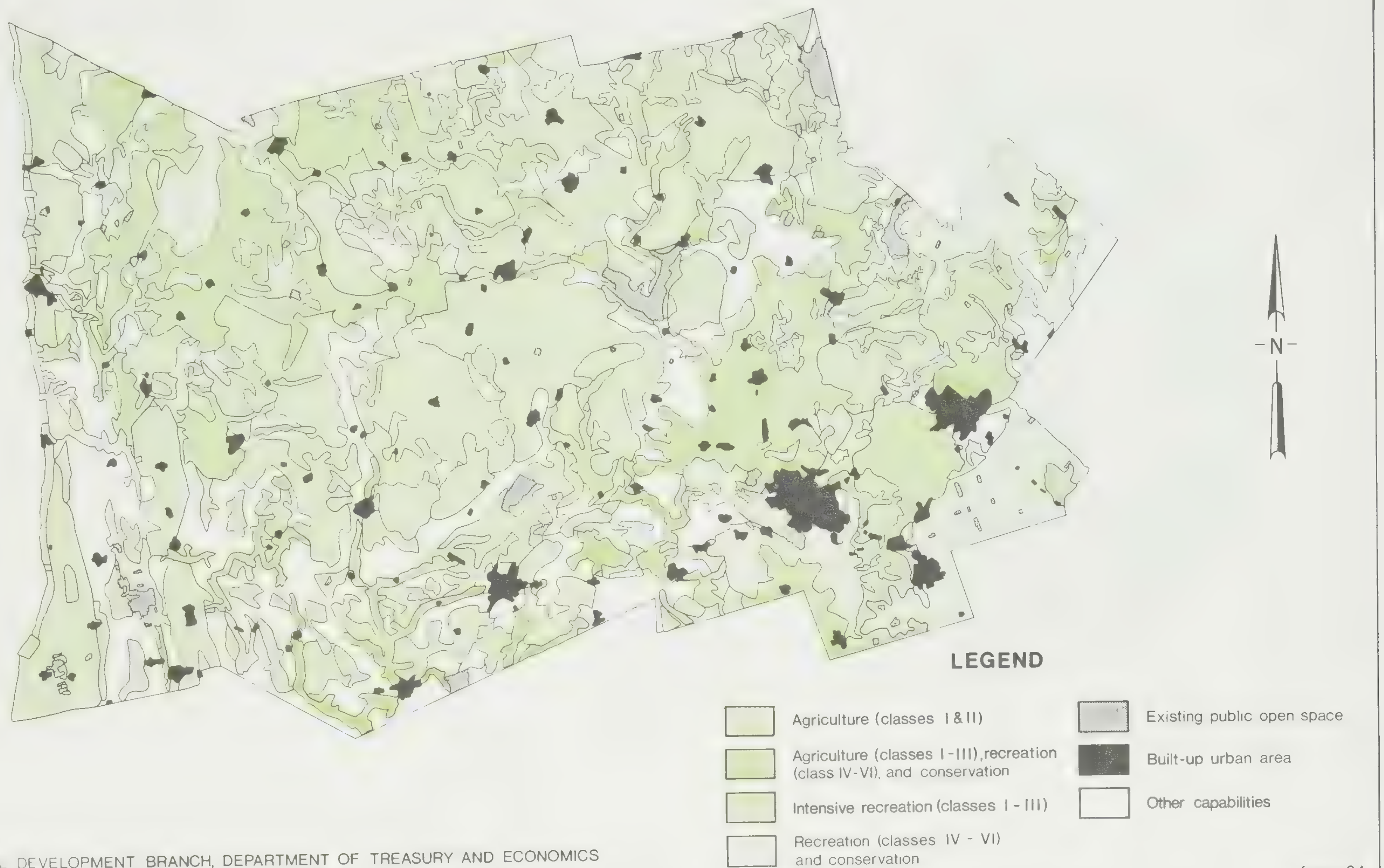
(c) There are substantial areas in which the intensity of current agricultural production still falls well below the latent potential capability of the land. (Tables 6.1 and 6.2)

(d) The somewhat limited supply of potential sites suitable for intensive outdoor recreation probably will not meet the Region's future total demand for this class of recreation land.

---

[1] The Canada Land Inventory classification system for "capability" ratings range from Class I, the highest capability to Class VII, the lowest.

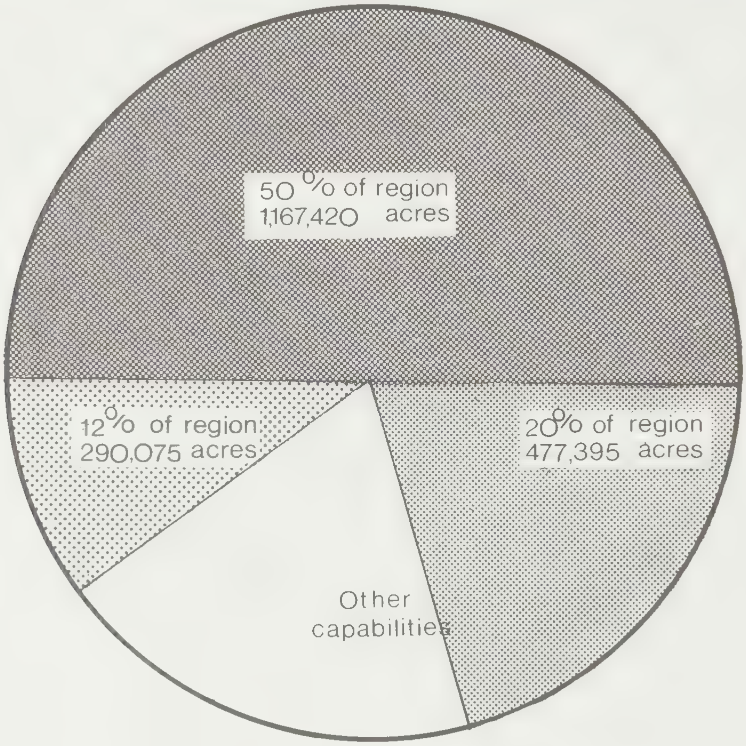
MIDWESTERN ONTARIO DEVELOPMENT REGION
LAND CAPABILITY ANALYSIS



REGIONAL DEVELOPMENT BRANCH, DEPARTMENT OF TREASURY AND ECONOMICS
Source: Canada Land Inventory

figure 24

MIDWESTERN ONTARIO DEVELOPMENT REGION
PROPORTION OF AGRICULTURAL LAND BY CAPABILITY CLASS
REGIONAL & PROVINCIAL



CRITERIA OF AGRICULTURAL LAND CAPABILITY

AGRICULTURE CAPABILITY CLASS	% OF PROVINCIAL TOTAL	
CLASS I LAND	24%	Soils in this class have no significant limitations in use for crops
CLASS II LAND	10%	Soils in this class have moderate limitations that restrict the range of crops or require moderate conservation practices
CLASS III LAND	9%	Soils in this class have moderately severe limitations that restrict the range of crops or require special conservation practices

NOTE — CLI Agriculture Classes range from I through VII

REGIONAL DEVELOPMENT BRANCH, DEPARTMENT OF TREASURY AND ECONOMICS

Source — Canada Land Inventory Soil Capability Mapping and Analysis

figure 25

TABLE [illegible]

LAND CAPABILITY FACTORS, TOWNSHIP ACREAGES & PERCENTAGES, MIDWESTERN ONTARIO REGION

	AGRICULTURE CAPABILITY[1]						RECREATION CAPABILITY				AGRICULTURE AND RECREATION CAPABILITY		EXISTING WOODLAND AREA	
	Agriculture I[2] (1)	%	Agriculture II[3] (2)	%	Agriculture III[4] (3)	%	Recreation I-III[5] (4)	%	Recreation IV-VI[6] (5)	%	Agriculture I-III Recreation IV-VI (6)	%	(7)	%
HURON	421,175	51	202,750	24	92,515	11	3,239		58,005	07	208,399	25	129,381	16
Ashfield	20,140	30	39,360	58	5,080	08	676	01	676	01	19,595	29	10,136	15
Colborne	12,270	33	15,425	42	4,980	13	1,477	04	1,108	03	14,768	40	7,015	19
Goderich	21,260	39	22,910	42	7,510	14	544	01	1,089	02	10,343	19	11,976	22
Grey	35,820	54	15,425	23	4,875	07	-	-	2,631	04	11,841	18	15,788	24
Hay	17,025	31	23,555	43	3,260	06	542	01	1,083	02	4,333	08	6,500	12
Howick	43,355	65	2,665	04	8,135	12	-	-	4,016	06	20,748	31	18,740	28
Hullett	33,780	52	20,990	32	5,520	08	-	-	3,276	05	20,308	31	4,586	07
McKillop	41,795	78	5,125	10	2,115	04	-	-			4,840	09	2,689	05
Morris	27,790	55	3,460	07	6,265	12	-	-	8,629	17	22,334	44	16,751	33
Stanley	21,820	48	16,770	37	5,825	13	-	-	457	01	5,939	13	4,569	10
Stephen	18,690	32	28,155	49	5,440	09	-	-	1,153	02	3,460	06	6,919	12
Tuckersmith	31,910	75	2,945	07	6,295	15	-	-	1,697	04	14,004	33	2,970	07
Turnberry	22,555	60	450	01	4,070	11	-	-	4,540	12	13,999	37	9,080	24
Usborne	29,830	70	2,755	06	9,340	22	-	-	-	-	3,434	08	429	01
Wawanosh, East	19,325	45	1,540	04	6,785	16	-	-	19,008	44	18,576	43	6,048	14
Wawanosh, West	23,810	55	1,220	03	7,020	16	-	-	8,642	20	19,877	46	5,185	12
PERTH	314,850	59	124,390	23	50,485	09	-	-	6,400	01	63,909	12	44,690	08
Blanshard	30,315	61	4,285	09	11,035	22	-	-	-	-	11,874	24	1,484	03
Downie	28,650	60	12,030	25	3,090	07	-	-	-	-	5,690	12	3,794	08
Easthope, North	24,635	58	2,625	06	8,775	21	-	-	1,703	04	8,087	19	8,513	20
Easthope, South	16,330	66	3,325	13	3,640	15	-	-	-	-	1,725	07	4,435	18
Ellice	25,115	44	23,105	40	3,555	06	-	-	-	-	572	01	6,858	12
Elma	37,195	54	23,680	35	560	01	-	-	3,424	05	2,739	04	3,424	05
Fullarton	27,510	66	5,660	14	5,680	14	-	-	-	-	8,385	20	2,096	05
Hibbert	29,965	71	2,895	07	5,735	14	-	-	1,273	03	5,941	14	6,365	15
Logan	22,705	40	29,505	52	2,510	04	-	-	-	-	3,996	07	2,855	05
Mornington	30,925	59	13,315	25	2,230	04	-	-	-	-	7,330	14	-	-
Wallace	41,505	77	3,965	07	3,675	07	-	-	-	-	7,570	14	4,866	09
WATERLOO	89,040	29	75,980	25	45,520	15	689		32,109	10	90,390	29	31,314	10
Dumfries, North	5,410	13	15,940	38	4,010	09	-	-	14,802	35	14,379	34	6,766	16
Waterloo	16,300	22	22,070	29	8,320	11	-	-	5,241	07	25,456	34	5,990	08
Wellesley	24,880	36	10,370	15	19,580	28	-	-	2,088	03	22,968	33	6,960	10
Wilmot	22,250	32	17,590	26	8,970	13	689	01	6,198	09	22,727	33	6,198	09
Woolwich	20,200	37	10,010	19	4,640	09			3,780	07	4,860	60	5,400	10
WELLINGTON	342,355	53	74,275	11	101,555	16	893		89,663	14	128,185	20	117,795	18
Arthur	50,855	76	6,920	10	3,390	05	-	-	-	-	8,746	13	16,820	25
Eramosa	21,505	45	5,400	11	9,485	20	-	-	6,624	14	22,238	47	11,829	25
Erin	17,165	23	3,535	05	23,285	31	-	-	32,093	43	8,956	12	29,108	39
Garafraxa, West	28,315	57	5,295	11	8,495	17	-	-	4,960	10	10,912	22	4,960	10
Guelph	20,790	52	8,840	22	6,150	15	-	-	794	02	17,874	45	1,986	05
Luther, West	31,820	63	6,720	13	2,775	05	-	-	2,022	04	5,054	10	12,635	25
Maryborough	41,115	72	3,720	07	5,900	10	-	-	-	-	9,088	16	1,704	03
Minto	35,705	49	9,375	13	6,780	09	-	-	6,588	09	7,320	10	19,032	26
Nichol	20,525	71	2,110	07	4,460	15	-	-	290	01	5,801	20	2,320	08
Peel	52,780	71	2,600	04	14,590	20	-	-	4,431	06	11,078	15	2,216	03
Pilkington	18,450	62	4,240	14	2,150	07	297	01	892	03	12,185	41	892	03
Puslinch	3,330	06	15,520	26	14,095	24	596	01	30,969	52	8,933	15	14,293	24

[1] This category includes the land listed under Agriculture and Recreation Capability. Figures for Agriculture Capability are taken from Canada Land Inventory tables. Other figures are approximate.

[2] According to the Canada Land Inventory, Class I soils have no significant limitations in use for crops. They are deep, have good water-holding capacity and in the virgin state were well supplied with plant nutrients. They are moderately high to high in productivity for a wide range of field crops.

[3] Class II soils have moderate limitations that restrict the range of crops. They may require more intensive conservation measures, tillage practices and special soil-conserving systems than Class I soils.

[4] Class III soils have moderately severe limitations restricting the range of crops, the timing and ease of tillage, planting and harvesting and they need special methods of conservation.

[5] According to the Canada Land Inventory, Class I-III recreation lands have a very high to moderately high capability for outdoor recreation. That is, they have a natural capability to engender and sustain a very high to moderately high total annual use, based usually on intensive or moderately intensive activities.

[6] Class IV-VI lands for recreation have moderate to low capability for outdoor recreation. They have a natural capability to engender and sustain low total use based on dispersed activities.

TABLE 6.2

RELATIONSHIP OF IMPROVED FARMLAND, 1966, TO SOIL CAPABILITY, TOWNSHIPS,

MIDWESTERN REGION

	IMPROVED FARMLAND 1966 (Acres)	% of Town-ship	Class I	% of Town-ship	Class II	% of Town-ship	Class I & II	% of Town-ship
HURON	620,472	75	421,175	51	202,750	24	623,925	75
Ashfield	51,919	78	20,140	30	39,360	58	59,500	88
Colborne	24,145	68	12,270	33	15,425	42	27,695	75
Goderich	35,339	61	21,260	37	22,910	42	44,170	81
Grey	48,328	73	35,820	54	15,425	23	51,245	77
Hay	39,997	72	17,025	31	23,555	43	40,580	74
Howick	50,904	72	43,355	65	2,665	04	46,020	69
Hullett	44,471	80	33,780	52	20,990	32	54,770	84
McKillop	47,385	87	41,795	78	5,125	10	46,920	88
Morris	41,282	73	27,790	55	3,460	07	31,250	62
Stanley	35,944	76	21,820	48	16,770	37	38,590	85
Stephen	46,164	76	18,690	32	28,155	49	46,845	81
Tuckersmith	34,524	81	31,910	75	2,945	07	34,855	82
Turnberry	24,476	67	22,555	60	450	01	23,005	61
Usborne	39,341	89	29,830	70	2,755	06	32,585	76
Wawanosh, East	29,414	68	19,325	45	1,540	04	20,865	49
Wawanosh, West	26,839	63	23,810	55	1,220	03	25,030	58
PERTH	456,893	85	314,850	59	124,390	23	439,240	82
Blanshard	40,634	86	30,315	61	4,285	09	34,600	70
Downie	41,389	82	28,650	60	12,030	25	40,680	85
Easthope, North	35,530	80	24,635	58	2,625	06	27,260	64
Easthope, South	19,791	81	16,330	66	3,325	13	19,655	79
Ellice	46,790	82	25,115	44	23,105	40	48,220	84
Elma	57,144	83	37,195	54	23,680	35	60,875	87
Fullarton	36,982	88	27,510	66	5,660	14	33,170	80
Hibbert	35,722	83	29,965	71	2,895	07	32,860	78
Logan	52,729	94	22,705	40	29,505	52	52,210	92
Mornington	46,203	91	30,925	59	13,315	25	44,240	84
Wallace	43,979	85	41,505	77	3,965	07	45,470	84
WATERLOO	225,536	75	89,040	29	75,980	25	165,020	54
Dumfries, North	27,253	63	5,410	13	15,940	38	21,350	51
Waterloo	47,332	68	16,300	22	22,070	29	38,370	51
Wellesley	55,892	83	24,880	36	10,370	15	35,250	51
Wilmot	49,727	75	22,250	32	17,590	26	39,840	58
Woolwich	45,332	82	20,200	37	10,010	19	30,210	56
WELLINGTON	456,602	70	342,355	53	74,275	11	416,630	64
Arthur	51,466	77	50,855	76	6,920	10	57,775	86
Eramosa	30,653	65	21,505	45	5,400	11	26,905	56
Erin	43,596	59	17,165	23	3,535	05	20,700	28
Garafraxa, West	36,865	78	28,315	57	5,295	11	33,610	68
Guelph	28,280	72	20,790	52	8,840	22	29,630	74
Luther, West	35,427	69	31,820	63	6,720	13	38,540	76
Maryborough	46,995	82	41,115	72	3,720	07	44,835	79
Minto	50,812	71	35,705	49	9,375	13	45,080	62
Nichol	21,457	76	20,525	71	2,110	07	22,635	78
Peel	61,277	81	52,780	71	2,600	04	55,380	75
Pilkington	23,141	75	18,450	62	4,240	14	22,690	76
Puslinch	26,633	43	3,330	06	15,520	26	18,850	32

Note: A.R.D.A. and D.B.S. data on township areas not strictly comparable.

Source: Canada, Dominion Bureau of Statistics, Census of Canada, Agriculture, 1966 (Ottawa: Queen's Printer), Tables 27 and 13.

A.R.D.A., Canada Land Inventory, Ontario Statistics, Soil Capability for Agriculture, Special Tabulation, 1969.

(e) A potential recreation and conservation corridor system exists in the Region, based primarily on major river valleys, large zones of low capacity recreation potential and the Lake Huron shoreline. (Tables 6.3 and 6.4)

(f) There are several large areas where a combination of recreational and agricultural uses of the land would be compatible.

(g) The Region has no significant commercial forest tracts. Existing woodlands are important open space assets in the potential regional recreation and conservation corridor system.

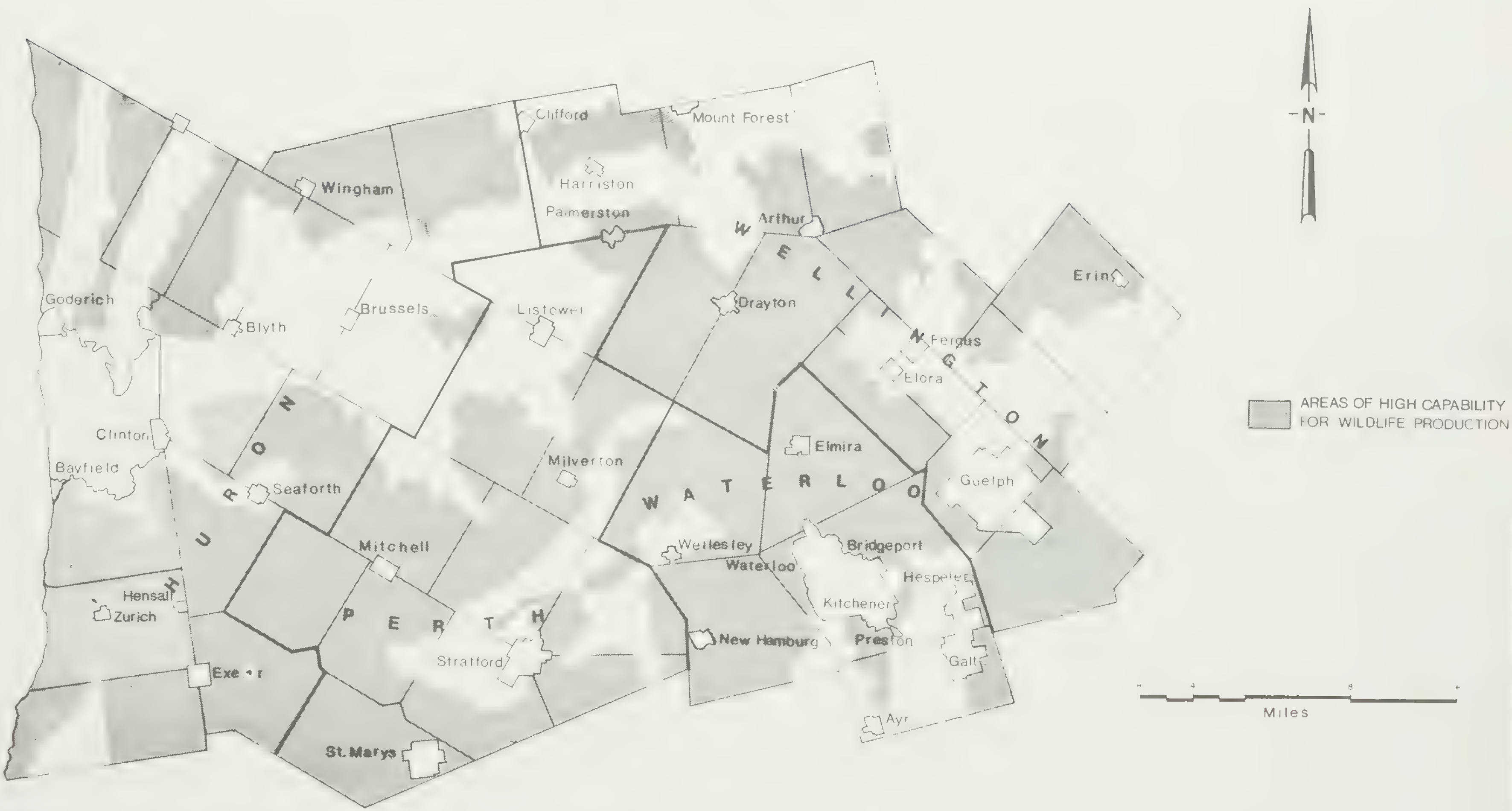
(h) The Region shows a high potential for a wide range of wildlife species. Many of the wildlife sites are suitable for multiple resource uses. (Figure 26)

(i) The Region contains valuable sand, gravel, and limestone deposits. Many of these deposits are located in areas of potential conflict with competing urban land uses.

(j) All lands having inherent environmental and/or physical hazards, such poor drainage, organic soils, flood susceptibility or steep slopes, should be considered as part of the regional open space system.

MIDWESTERN ONTARIO DEVELOPMENT REGION

WILDLIFE CAPABILITY



REGIONAL DEVELOPMENT BRANCH, DEPARTMENT OF TREASURY AND ECONOMICS
Source, Ontario Land Inventory, Dept. of Lands and Forests

Figure 26

TABLE 6.3

POTENTIAL INTENSIVE RECREATION AREAS[1]

	Classification & Location	Size[2]	Recreation Feature
Lake Huron Shoreline	Class I[3] area in Stephen Township north of the Town of Grand Bend	1,000 acres and 5 miles of Lake Huron shoreline	- beach activities are the dominant feature and lodging and viewing are subordinate features. This is the only Class I area in the Region
	Class III[4] area in Hay Township near St. Joseph	100 acres and 0.4 miles of Lake Huron shoreline	- lodging is the dominant feature and beach activities a subordinate feature
	Class III area in Goderich Township north of Bayvield	200 acres and 1.2 miles of shoreline	- beach activities are the dominant feature with lodging as a subordinate feature. One small area is adjacent to Poin Farms Provincial Park
	Several Class III areas in Colborne Township	300 acres and 2.5 miles of shoreline	- beach is dominant feature with lodging, physical landscape, organized camping and viewing as subordinate features
	Class III area in Ashfield Township near Port Albert	500 acres and 2 miles of Lake Huron shoreline	- beach is dominant feature with lodging, viewing, family boating as subordinate feature
	Class III area in Colborne Township on the Maitland River	50 acres	- viewing is dominant feature with the physical landscape as a subordinate feature
Kitchener-Waterloo Area	Class III area in northeast corner of Wilmot Township around Sunfish Lake	200 acres	- lodging is dominant feature and upland wildlife a subordinate feature
	Class II[5] area in Guelph Township	100 acres	- wetland wildlife is dominant feature. Angling and family boating are subordinate activities

[1]Only those areas which are not used as public open space are listed.

[2]Acreage and shoreline figures are approximate.

[3]Class I land has a very high capability for outdoor recreation.

[4]Class III land has a moderately high capability for outdoor recreation.

[5]Class II land has a high capability for outdoor recreation.

Source: The Canada Land Inventory, Recreation Land Capability Maps Richmond Hill, 1969.

(k) There are a number of zones of low agricultural capability which have dispersed recreation capability for such land uses as hobby farms and low density country estates.

(1) Wherever possible the pattern of future regional growth should take into account the distribution of the major aquifers and their potential for pollution. (Figure 27)

(m) If development alternatives permit a conscious choice among new sites for residential or industrial use, the land capability analysis process can ensure that the loss of better soils or recreation sites are minimized and that ecological principles are taken into account.

MIDWESTERN ONTARIO DEVELOPMENT REGION

AQUIFERS WITH HIGH POLLUTION POTENTIAL

Areas shown thus ▭ are where bedrock and/or overburden aquifers are developed at depths of less than 100 feet and where surficial deposits have a good infiltration capacity. Such aquifers have a high potential for pollution.

REGIONAL DEVELOPMENT BRANCH, DEPARTMENT OF TREASURY AND ECONOMICS
Source: Ontario Water Resources Commission

Figure 27

TABLE 6.4

Major Recreation and Conservation Open Space Zones

Location	Type of Activities
1. Lake Huron Shoreline	The sections of the Lake Huron shoreline not included as intensive recreation are Class IV land capability for recreation and conservation. The dominant activities are beaches, lodging and viewing, with topographic features as a secondary feature throughout the zone.
2. River Valley Network	
Maitland River Valley and tributaries	This important recreation and conservation corridor links the Lake Huron shoreline to a very large area of recreation potential in the northwestern part of the Region and also provides a framework for this particular area. This system extends eastward to provide a link with other valley corridors, notably the Conestogo which, in turn, connects several major recreation and conservation zones in the eastern part of the Region. The inland parts of the Maitland Valley system are mainly Class VI areas for angling with some upland wildlife. As the streams approach Lake Huron, their capability rating increases to Class V and ultimately to Class IV with canoeing and the physical landscape as important features in addition to angling.
Lucknow and Bayfield River Valleys	The Lucknow and Bayfield River Valleys form a part of the recreation system linking the Lake Huron shoreline to inland areas. These valleys offer Class V and VI areas for angling, topographic patterns and upland wildlife.
Ausable and Thames River Systems	The Ausable and Thames River corridors are significant in that they are the only areas of important recreational

TABLE 6.4

Major Recreation and Conservation Open Space Zones (Cont'd)

Location	Type of Activities
	and conservation potential in the south-western portion of the Region. The two corridors are independent and do not provide direct links with other recreation and conservation features. They are mainly Class VI for angling and upland wildlife. The Avon and Thames River, near St. Marys, are Class V for angling and canoeing.
Conestogo, Grand, Eramosa and Speed River Systems	The Conestogo, Grand, Eramosa and Speed River corridors form the eastern part of the corridor network and link up to the western part of the Region via the Conestogo and Maitland systems. They connect a number of large recreation and mixed agriculture, recreation and conservation zones in the eastern part of the study area. The Conestogo corridor is mainly Class V for angling and canoeing. The area around Conestogo Lake is Class IV for a variety of activities such as angling, canoeing, beaches, viewing, lodging, organized camping and family boating. The Grand River corridor is generally Class V for angling and canoeing with large areas of topographic patterns. Certain areas of high capability stand out. Belwood Lake has one area of Class III land on the northwest shore, the remainder being Class IV. Organized camping, viewing, beaches, lodging and wetland wildlife are some of the recreation activities available. Between Kitchener and Galt, there are several stretches of Class IV land for canoeing, viewing and angling. This is a particularly important area since it is in close proximity to most of the Region's population. The Speed and Eramosa Rivers are mainly Class V areas for angling, upland wildlife and topographic patterns.

TABLE 6.4

Major Recreation and Conservation Open Space Zones (Cont'd)

Location	Type of Activities
3. Other Major Areas	There are a number of large recreation and conservation areas in the Region which have a moderately low to low capability rating, mainly Class V and VI land. These are important areas to be conserved for regional open space. They are generally linked together by river corridors which, in turn, are areas of higher capability rating. Small special feature areas are often of prime importance. For example, the covered bridge at West Montrose (a Class IV area) is the only structure of its kind remaining in Ontario.
Northwestern part of the Region between Goderich and Wingham	This is the largest single recreation and conservation area in the Midwestern Region. Activities are mainly limited to upland wildlife, topographic patterns and cultural landscape. The majority of this area is Class VI with some small pockets of Class V land.
Smaller area north and west of Gorrie and Wroxeter	This is an area of Class VI land for topographic patterns, cultural landscape and upland wildlife.
Four large areas in southeast part of the Region around Guelph, Kitchener-Waterloo and Galt	Particular importance can be attached to these areas because of their relative high access to major urban centres. Classes V and VI land for topographic patterns, cultural landscape and upland wildlife are found in this area.

CHAPTER VII

POTENTIAL CENTRES OF OPPORTUNITY

The Growth Centre Concept

In Ontario today, the greatest employment opportunities and the most extensive range of social and cultural amenities are to be found mainly in the larger urban areas. The Province has been undergoing a rapid transformation from a rural to an urban society. This shift emphasizes the close relationship between a substantial number of the goals and objectives of the Regional Development Program outlined in Chapter VIII and the future form of urban growth.

The trend towards urbanization is definite and world wide. With inadequate means of attracting large-scale manufacturing, wholesaling and cultural facilities, most small urban places are unable to provide the sophisticated services demanded by people today.

The Province recognizes the advantages of larger urban concentrations as implied by the growth centre principle. A growth centre is defined as an urban core and its surrounding service area capable of either spontaneous or potential growth of population, economic activity and income.

Ideally, the benefits of growth are transmitted from the larger centre to its surrounding territory so that the advantages

of urban life are shared among the people of smaller centres and rural areas. The advantages of urban concentration and hence growth centres include a maximum utilization of investment, improvement in the range of services likely to be available to people and industry, exploitation of external economies, the diversification of economic activity and opportunity, and capacity to withstand the effects of future structural changes and cyclical downswings in local employment.

Growth centres should be chosen with careful regard to (1) the functions they are expected to carry out in their respective performance areas, and (2) a provincial policy of "nodalized decentralization". Areas of high performance obviously do not need measures to stimulate growth. Major development problems there are associated with space adjustment and conservation of both human and and natural resources. In contrast, low performance areas may need assistance if growth is to take place.

The principle of nodalized decentralization has two major benefits: (1) current urban trends can be properly structured, and (2) the foundation can be laid for carefully planned, larger urbanized areas in the future.

All in all, the total pattern of growth points should comprise a geographical mosaic which offers employment opportunities to essentially all urban and rural people in the Province.

For the Midwestern Ontario Region, 23 centres were selected for evaluation as potential growth centres. Kitchener was grouped with Waterloo, and Galt and Preston with Hespeler because, for all intents and purposes, they are functional entities.

In order to assess urban places as centres for growth and centres of potential investment opportunity, several factors were evaluated. The first involved the past rate of population growth, particularly of the centre but also of its surrounding area (Tables 7.1 and 7.2). The growth of urban centres was analysed for two sub-regions: the rapidly growing Waterloo-Wellington area, and the slower growth counties of Huron and Perth.

A second factor was the spheres of influences of these centres, which involved journey-to-work patterns (Figure 28), the size of each community and its associated trade area (Table 7.3), the function that each centre serves in the Region (Figure 29), and lastly the influence of Provincial and Federal Government services in each community (Figure 30).

A third factor analyzed the sectoral and industrial mix of centres (Table 7.4 and 7.5).

A fourth factor was concerned with infrastructure - water and sewage facilities, the availability of industrial land, accessibility by various modes of transport, and the recreational and cultural facilities offered by the various centres.

TABLE 7.1

GROWTH RATES OF URBAN CENTRES, AND SHARES OF TOTAL URBAN GROWTH, WATERLOO AND WELLINGTON COUNTIES, 1961 - 1968

Centre	Per Cent Growth of Each Urban Centre 1961-1968	Centre's Per Cent of Two-County Urban Growth 1961-1968
Kitchener-Waterloo	36.8	53.8
Guelph	36.7	21.8
Galt-Preston-Hespeler	27.9	18.5
Elmira	31.9	1.6
Fergus	27.5	1.6
Bridgeport	31.9	0.8
New Hamburg	19.9	0.6
Erin	23.3	0.4
Mount Forest	8.9	0.4
Elora	12.8	0.3
Ayr	13.1	0.2
Palmerston	9.3	0.2
Arthur	1.2	-
Harriston	2.5	-
Ontario	14.1	n.a.

Note: Dashes refer to percentage shares of less than 0.2 per cent.
n.a. - not applicable.

Source: Department of Municipal Affairs, Community Planning Branch, Ontario Population Statistics, 1968.

TABLE 7.2

GROWTH RATES OF URBAN CENTRES, AND SHARES OF TOTAL URBAN GROWTH, HURON AND PERTH COUNTIES, 1961 - 1968

Centre	Per Cent Growth of Each Urban Centre 1961-1968	Centre's Per Cent of Two-County Urban Growth 1961-1968
Stratford	13.7	63.0
Listowel	14.5	12.8
Goderich	4.7	6.7
St. Marys	5.4	5.5
Exeter	5.2	3.5
Mitchell	6.5	3.3
Wingham	3.3	2.1
Clinton	2.8	2.0
Milverton	2.5	0.6
Seaforth	0.5	0.3
Ontario	14.1	n.a.

Note: n.a. - not applicable

Source: Department of Municipal Affairs, Community Planning Branch, Ontario Population Statistics, 1968.

TABLE 7.3

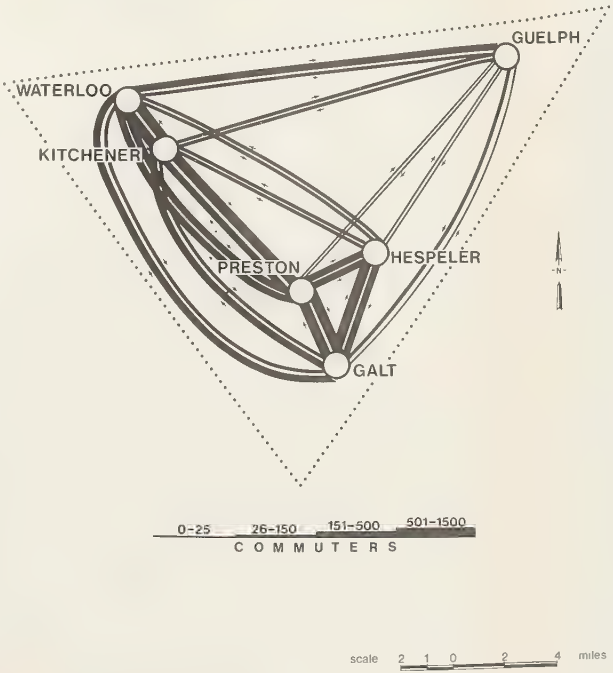
COMPOSITION OF TRADE AREAS: SIZE, RURAL AND URBAN POPULATION, 1966

Urban Centre	Trade Area Population 1966	Population Of Central City 1966	Urban Population Of Trade Area (Incorporated Places Excluding Central City) 1966	Rural Population Of Trade Area 1966	Trade Area Size (Sq. Miles)
Kitchener-Waterloo	220,568 (100.0)	123,144 (55.8)	76,200 (34.6)	21,224 (9.6)	402
Guelph	98,772 (100.0)	51,377 (52.0)	26,992 (27.3)	20,503 (20.7)	486
Galt-Preston-Hespeler	85,048 (100.0)	52,252 (61.4)	1,134 (1.3)	31,662 (37.2)	521
Stratford	54,675 (100.0)	23,068 (42.2)	9,682 (17.7)	21,925 (40.1)	650
Elmira	23,992 (100.0)	4,047 (16.9)	2,321 (9.7)	17,554 (73.4)	404
Fergus	20,966 (100.0)	4,376 (20.9)	4,070 (19.4)	12,520 (59.7)	331
Goderich	20,628 (100.0)	6,701 (32.5)	4,552 (22.1)	9,375 (45.4)	457
New Hamburg	16,387 (100.0)	2,438 (15.0)	1,908 (11.6)	12,041 (73.4)	242
Listowel	13,882 (100.0)	4,526 (32.6)	-	9,356 (67.4)	470
St. Marys	12,149 (100.0)	4,750 (39.1)	-	7,399 (60.9)	276
Clinton	9,481 (100.0)	3,280 (34.6)	1,263 (13.3)	4,938 (52.1)	175
Seaforth	9,315 (100.0)	2,241 (24.1)	934 (10.0)	6,140 (65.9)	172
Exeter	9,274 (100.0)	3,226 (34.8)	1,671 (18.0)	4,897 (47.2)	216
Wingham	8,707 (100.0)	2,974 (34.2)	820 (9.4)	4,913 (56.4)	262
Mount Forest	8,601 (100.0)	2,859 (33.2)	1,631 (19.0)	4,111 (47.8)	241
Mitchell	8,228 (100.0)	2,371 (28.8)	-	5,857 (71.2)	233
Milverton	7,426 (100.0)	1,122 (15.1)	-	6,304 (84.9)	179
Palmerston	7,164 (100.0)	1,631 (22.8)	677 (9.5)	4,856 (67.7)	176
Elora	6,599 (100.0)	1,644 (24.9)	-	5,155 (75.1)	175
Harriston	6,169 (100.0)	1,748 (28.3)	1,631 (26.4)	2,790 (45.3)	155
Arthur	5,769 (100.0)	1,242 (21.5)	-	4,527 (78.5)	213
Ayr	5,665 (100.0)	1,134 (20.0)	-	4,531 (80.0)	70
Erin	5,268 (100.0)	1,195 (22.7)	-	4,073 (77.3)	204

\- Nil

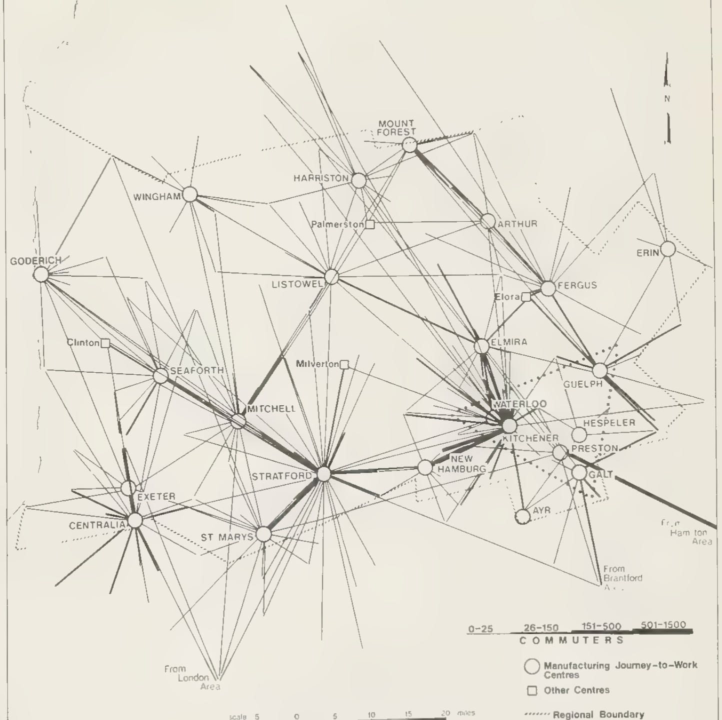
Source: Calculated from field data and census tabulations, Regional Development Branch.

" GOLDEN TRIANGLE " INTER-URBAN JOURNEY-TO-WORK



REGIONAL DEVELOPMENT BRANCH,
DEPARTMENT OF TREASURY AND ECONOMICS

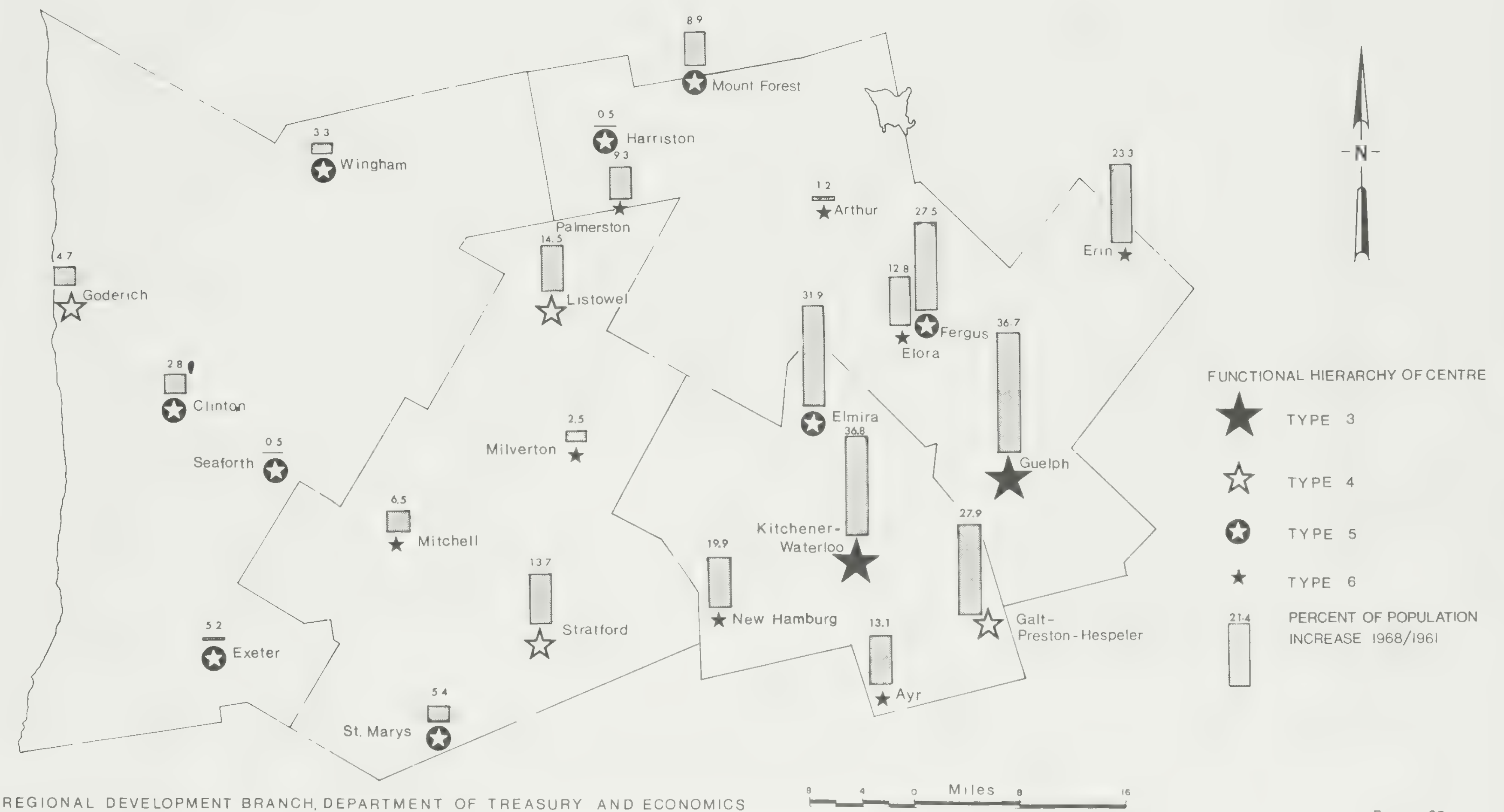
MIDWESTERN ONTARIO DEVELOPMENT REGION JOURNEY-TO-WORK



REGIONAL DEVELOPMENT BRANCH DEPARTMENT OF TREASURY AND ECONOMICS

Figure 28

MIDWESTERN ONTARIO DEVELOPMENT REGION
RATE OF POPULATION INCREASE AND FUNCTIONAL HIERARCHY OF CENTRES

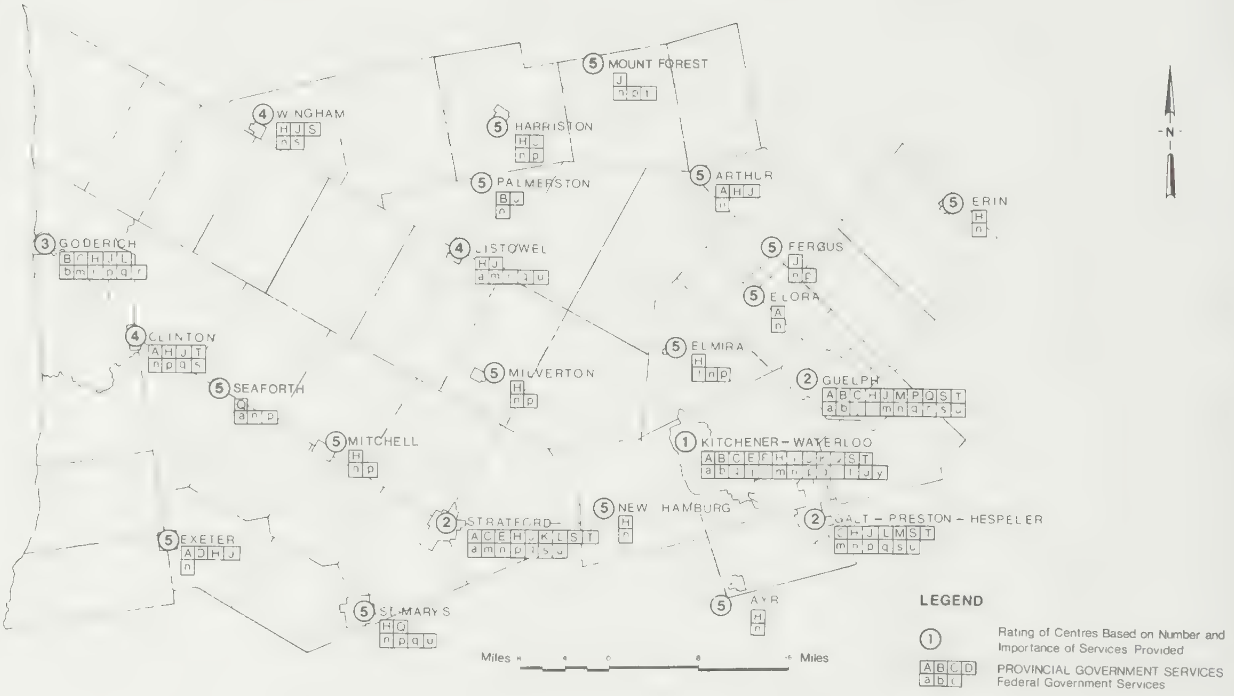


REGIONAL DEVELOPMENT BRANCH, DEPARTMENT OF TREASURY AND ECONOMICS
Source: Ontario Department of Municipal Affairs, Ontario Population Statistics 1968

Figure 29

MIDWESTERN ONTARIO DEVELOPMENT REGION

LOCATION OF GOVERNMENT SERVICES



GOVERNMENT SERVICES

MAP CODES

PROVINCIAL

A AGRICULTURE & FOOD
B HEALTH
C CORRECTIONAL SERVICES
D TRADE & DEVELOPMENT
E EDUCATION
F FINANCIAL & COMMERCIAL AFFAIRS
G PROVINCIAL SECRETARY & CITIZENSHIP
H HIGHWAYS
I TOURISM & INFORMATION
J JUSTICE & ATTORNEY – GENERAL
K LABOUR
L LANDS & FORESTS
M MUNICIPAL AFFAIRS
N MINES
O TREASURY & ECONOMICS
P PUBLIC WORKS
Q REVENUE
R ENERGY & RESOURCES MANAGEMENT
S SOCIAL & FAMILY SERVICES
T TRANSPORT
U UNIVERSITY AFFAIRS

FEDERAL

a AGRICULTURE
b NATIONAL HEALTH & WELFARE
c EXTERNAL AFFAIRS
d INDUSTRY, TRADE & COMMERCE
e SUPPLY & SERVICES
f FINANCE
g SECRETARY OF STATE
h REGIONAL ECONOMIC EXPANSION
i INDIAN AFFAIRS & NORTHERN DEVELOPMENT
j JUSTICE & SOLICITOR – GENERAL
k LABOUR
l FISHERIES & FORESTRY
m MANPOWER & IMMIGRATION
n POSTMASTER-GENERAL & COMMUNICATIONS
o TREASURY
p PUBLIC WORKS
q REVENUE
r ENERGY MINES & RESOURCES
s NATIONAL DEFENCE
t TRANSPORT
u UNEMPLOYMENT INSURANCE COMMISSION
v VETERANS' AFFAIRS
w CONSUMER & CORPORATE AFFAIRS
x CANADIAN BROADCASTING CORPORATION
y CENTRAL MORTGAGE & HOUSING CORPORATION

Source Provincial and Federal Departments of Public Works, Provincial Department of Justice, and Telephone Directories 1969

REGIONAL DEVELOPMENT BRANCH DEPARTMENT OF TREASURY AND ECONOMICS

Figure 30

Table 7.4

Sectoral Mix by Urban Centre, Midwestern Ontario Region, 1961

Urban Centre	Labour Force[a] 1961	% of Labour Force in Resource Industries & Mfg. Sector	% of Labour Force in Trades, Services Finance Sector	% of Labour Force in "Other Special Activities" Sector
Kitchener-Waterloo	41,126	44.6	39.8	15.6
Galt-Hespeler-Preston	18,207	58.0	54.6	21.9
Guelph	16,230	41.0	42.0	17.0
Stratford	8,154	37.3	40.6	22.1
Goderich	2,255	30.1	42.0	27.9
St. Marys	1,564	44.3	39.9	15.8
Listowel	1,525	38.6	40.5	20.9
Fergus	1,449	51.6	36.3	12.1
Elmira	1,308	49.9	38.4	11.7
Clinton	1,273	17.1	37.5	45.4
Wingham	1,151	28.5	49.7	21.8
Exeter	1,086	18.4	49.2	32.4
New Hamburg	931	50.7	36.9	12.4
Mt. Forest	925	32.6	46.2	21.2
Mitchell	809	30.0	46.0	24.0
Seaforth	777	36.3	42.3	21.4
Harriston	611	34.7	45.2	20.1
Palmerston	564	26.4	46.3	27.3
Elora	524	43.9	38.0	18.1
Milverton	434	42.4	43.8	13.8
Arthur	422	23.5	53.0	23.5

[a] The 1961 Census labour force includes all persons 15 years of age and over, who had a job of any kind, either part-time or full-time (even if they were not at work), or were reported as looking for work. The labour force excludes all inmates of institutions.

Source: Tables compiled and ratios calculated from data supplied by Canada, Department of Manpower and Immigration.

TABLE 7.5

INDUSTRY MIX, SELECTED URBAN CENTRES, MIDWESTERN ONTARIO REGION, 1968

Urban Centre	Total Manufacturing Employment (1)	% Of Regional Manufacturing Employment (2)	Food And Beverage Industries (3)	Tobacco Products Industries (4)	Rubber Industries (5)	Leather Industries (6)	Textile Industries (7)	Knitting Mills (8)	Clothing Industries (9)	Wood Industries (10)	Furniture And Fixture Industries (11)
Kitchener-Waterloo	29,677	41.6	4,891 (16.5)	-	4,151 (14.0)	1,564 (5.3)	1,578 (5.3)	697 (2.4)	1,994 (6.7)	597 (2.0)	2,225 (7.5)
Galt-Preston-Hespeler	15,855	22.3	336 (2.1)	-	361 (2.2)	1,657 (10.5)	2,467 (15.6)	521 (3.3)	250 (1.6)	130 (0.8)	617 (3.9)
Guelph	10,437	14.6	377 (3.6)	658 (6.2)	164 (1.6)	50 (0.5)	580 (5.5)	156 (1.5)	632 (6.0)	82 (0.8)	96 (0.9)
Stratford	5,458	7.7	127 (2.3)	-	725 (13.3)	67 (1.2)	348 (6.4)	112 (2.1)	66 (1.2)	11 (0.2)	531 (9.7)
Fergus	1,414	2.0	95 (6.7)	-	-	155 (11.0)	4 (0.3)	-	-	31 (2.2)	9 (0.6)
Listowel	1,126	1.6	670 (59.5)	-	-	-	200 (17.8)	-	-	16 (1.4)	218 (19.4)
Elmira	1,067	1.5	175 (16.4)	-	34 (3.2)	-	116 (10.9)	128 (1.2)	55 (5.2)	1 (0.1)	80 (7.5)
St. Marys	740	1.0	59 (8.0)	-	-	-	-	-	-	-	-
Goderich	670	0.9	-	-	-	-	-	-	-	109 (16.3)	-
New Hamburg	483	0.7	10 (2.1)	-	-	20 (4.1)	26 (5.4)	-	-	-	62 (12.8)
Wingham	454	0.6	-	-	-	25 (5.5)	-	-	-	200 (44.1)	25 (5.5)
Seaforth	365	0.5	28 (7.7)	-	-	180 (48.1)	-	-	-	5 (1.3)	49 (13.1)
Mount Forest	262	0.4	29 (11.1)	-	-	-	-	-	-	112 (42.8)	-
Hensall	202	0.3	38 (18.8)	-	4 (2.0)	-	-	-	-	-	-
Harriston	187	0.3	128 (68.4)	-	-	-	-	-	-	24 (12.8)	-
Exeter	185	0.3	86 (46.5)	-	-	-	-	-	-	-	13 (7.0)
Elora	148	0.2	-	-	-	-	-	-	-	-	148 (100.0)
Clinton	147	0.2	23 (15.6)	-	-	-	-	32 (21.8)	-	-	23 (15.7)
Mitchell	139	0.2	72 (51.8)	-	-	-	-	-	-	35 (25.2)	-
Ayr	90	0.1	7 (7.8)	-	-	-	-	-	-	-	7 (7.8)
Palmerston	51	0.1	39 (76.5)	-	-	-	-	-	-	3 (5.9)	-
Erin	41	0.1	-	-	-	-	15 (36.6)	-	-	15 (36.6)	-
Arthur	36	0.1	33 (91.7)	-	-	-	-	-	-	-	-
Total Employment	69,234	97.5	7,223	658	5,439	3,718	5,334	1,646	2,997	1,371	4,103
% Of Regional Employment			97.9	100.0	91.3	99.3	99.1	100.0	90.9	92.4	96.9

TABLE 7.5 (Cont'd)

INDUSTRY MIX, SELECTED URBAN CENTRES, MIDWESTERN ONTARIO REGION, 1968 (Cont'd.)

Urban Centre	Paper And Allied Industries (12)	Printing Publishing And Allied Industries (13)	Primary Metal Industries (14)	Metal Fabricating Industries (15)	Machinery Industries (16)	Transportation Equipment Industries (17)	Electrical Products Industries (18)	Non-Metallic Mineral Products Industries (19)	Petroleum And Coal Products Industries (20)	Chemical And Chemical Products Industries (21)	Miscellaneous Manufacturing Industries (22)
Kitchener-Waterloo	309 (1.0)	212 (0.7)	65 (0.2)	3,283 (11.1)	1,680 (5.7)	1,909 (6.4)	2,454 (8.3)	806 (2.7)	-	251 (0.8)	1,011 (3.4)
Galt-Preston-Hespeler	32 (0.2)	6 (*)	967 (6.1)	2,837 (17.9)	2,221 (14.0)	1,344 (8.5)	1,224 (7.7)	218 (1.4)	-	270 (1.7)	397 (2.5)
Guelph	285 (2.7)	10 (0.1)	658 (6.2)	2,105 (19.9)	749 (7.1)	334 (3.2)	2,459 (23.3)	408 (3.9)	15 (0.2)	152 (1.4)	467 (4.4)
Stratford	77 (1.4)	118 (2.2)	21 (0.4)	825 (15.1)	677 (12.4)	1,089 (20.0)	291 (5.3)	13 (0.2)	-	78 (1.4)	282 (5.2)
Fergus	-	157 (11.1)	45 (3.2)	67 (4.7)	300 (21.2)	165 (11.7)	383 (27.1)	-	-	3 (0.2)	-
Listowel	-	-	-	-	-	-	-	18 (1.6)	-	-	4 (0.4)
Elmira	-	-	55 (5.2)	23 (2.2)	59 (5.5)	17 (1.6)	17 (1.6)	-	34 (3.2)	267 (25.0)	6 (0.6)
St. Marys	243 (32.8)	-	-	102 (13.8)	62 (8.4)	60 (8.1)	-	196 (26.5)	-	-	18 (2.4)
Goderich	-	68 (10.2)	-	18 (2.7)	273 (40.8)	46 (6.9)	-	8 (1.2)	-	74 (11.0)	74 (11.0)
New Hamburg	-	-	148 (30.6)	198 (41.0)	-	7 (1.5)	-	-	-	-	12 (2.5)
Wingham	-	-	40 (8.8)	164 (36.1)	-	-	-	-	-	-	-
Seaforth	-	5 (1.3)	-	53 (14.2)	20 (5.4)	-	-	12 (3.2)	-	13 (3.6)	-
Mount Forest	-	-	-	-	-	-	90 (34.4)	-	-	-	31 (11.8)
Hensall	-	-	-	-	-	150 (74.2)	-	4 (2.0)	-	6 (3.0)	-
Harriston	-	-	-	5 (2.7)	-	-	-	-	-	30 (16.1)	-
Exeter	-	-	-	-	35 (18.9)	36 (19.5)	-	-	-	-	15 (8.1)
Elora	-	-	-	-	-	-	-	-	-	-	-
Clinton	-	4 (2.7)	-	4 (2.7)	8 (5.4)	-	-	-	-	30 (20.4)	23 (15.6)
Mitchell	-	-	-	-	-	-	-	32 (23.0)	-	-	-
Ayr	-	-	32 (35.6)	28 (31.1)	13 (14.4)	-	-	-	-	3 (3.3)	-
Palmerston	-	-	-	-	-	-	-	-	-	9 (17.7)	-
Erin	-	-	-	5 (12.2)	-	-	-	1 (2.4)	-	-	5 (12.2)
Arthur	-	3 (8.3)	-	-	-	-	-	-	-	-	-
Total Employment	946	583	2,031	9,717	6,097	5,157	6,918	1,716	49	1,186	2,345
% Of Regional Employment	100.0	100.0	99.9	99.0	98.8	96.1	100.0	92.8	71.0	96.0	94.2

Note: (*) Less than 0.1 per cent.
Figures in brackets refer to the percentage share in each SIC group for each centre.

Source: MODA and Scotts Industrial Directories, 1968.

Summary of Evaluation Factors for Urban Growth Potential (Table 7.6)

In order to reduce the analysis to a simplified form, 14 selected measures of potential urban growth were classified into a tabular arrangement. These are presented in the table entitled Preliminary Analysis of Selected Measures of Urban Growth Potential with a footnote added to clarify the mechanics involved in the quantitative presentation.

TABLE 7.6

PRELIMINARY ANALYSIS OF SELECTED MEASURES OF URBAN GROWTH POTENTIAL, MIDWESTERN ONTARIO REGION

SELECTED MEASURES \ URBAN CENTRES	Arthur	Ayr	Clinton	Elmira	Elora	Erin	Exeter	Fergus	Galt-Preston-Hespeler	Goderich	Guelph	Harriston	Kitchener-Waterloo	Listowel	Milverton	Mitchell	Mount Forest	New Hamburg	Palmerston	St. Marys	Seaforth	Stratford	Wingham
Functional Type of Centre, 1969	6	6	5	5	6	6	5	5	4	4	5	[illegible]	3	4	6	5	5	6	6	5	5	4	5
Trade Area Size, 1969	4	5	4	3	4	4	4	3	2	2	2	4	3	2	4	4	4	4	4	3	4	1	4
Trade Area Population, 1966	5	5	5	5	[illegible]	5	5	5	3	5	3	[illegible]	1	[illegible]	5	5	5	5	[illegible]	5	5	3	5
Wholesale Sales, 1961	-	-	-	-	-	-	-	-	3	4	3		2	-	-	-	-	-		-	-	4	-
Manufacturing Employment, 1968	[illegible]	5	5	4	5	[illegible]	5	4	1	4	2	[illegible]	1	4	5	5	5	5	5	4	5	2	5
Provincial and Federal Government Services, 1969	5	5	4	5	5	5	5	5	2	3	2	5	1	4	[illegible]	5	5	5	5	5	5	2	4
Population Growth of Centre, % Change 1961 to 1968	4	5	4	1	3	2	4	1	1	4	1	4	1	3	4	4	3	2	3	4	4	3	4
Retail Sales % Change 1961 to 1966	2	2	4	3	[illegible]	1	3	3	3	3	3	3	3	2	2	3	5	1	4	3	3	3	4
Manufacturing Employment % Change 1961 to 1968	-	3	[illegible]	2	4	4	4	[illegible]	2	2	2	4	2	3	3	1	4	4	4	4	3	2	3
Growth Prospect of the Economic Base, 1969	4	4	4	2	[illegible]	[illegible]	3	2	1	3	1	[illegible]	1	3	5	3	4	3	[illegible]	4	5	1	4
Accessibility Rating of Centres, 1969	3	3	3	4	5	[illegible]	3	4	1	4	1	1	1	4	4	3	3	3	3	4	4	2	3
Cultural and Recreational Facilities, 1969	5	5	4	3	3	[illegible]	[illegible]	3	5	2	1	5	1	[illegible]	5	5	5	5	5	3	5	1	4
Water and Sewer Spare Capacity, 1968 and 1969	1	5	3	2	[illegible]	[illegible]	[illegible]	3	5	4	3	5	[illegible]	3	2	1	2	[illegible]	1	4	4	3	[illegible]
Availability of Industrial Sites, 1968 and 1969	1	4	4	[illegible]	1	4	4	1	1	2	1	2	3	3	4	1	2	1	1	1	4	1	4

Note: Dashes refer to centre where data are not available or applicable.

FOOTNOTES: SELECTED MEASURES OF URBAN GROWTH

1. Functional Type of Centre, 1969

Type	Description	Generalized Population Ranges
1	Megalopolitan Centre	Above 500,000
2	Supra-regional Centre	250,000 to 500,000
3	Regional Centre	42,000 to 300,000
4	Sub-regional Centre	7,800 to 50,000
5	Full Convenience Centre	800 to 9,000
6	Minimum Convenience Centre	220 to 1,500

These types were selected using a list of typical functions, business and other services which draw people from the surrounding territory into the centre. The general criteria for rating centres included the kind and number of commercial and industrial facilities, transportation and communications, cultural and recreational facilities, and service facilities. In addition, the relative location of the centre, the pattern of trip frequencies and the distances travelled were considered to be significant in the final classification of the centre. Data sources included Dun and Bradstreet Reference Book, May 1969, telephone directories and statistical tabulations prepared by the Regional Development Branch.

2. Trade Area Size, 1969

The boundaries of the trading area of each functional type of centre were defined by the journey-to-work zones. The centres were then rated according to the following:

Trade Area (square miles)	Rating
Above 623	1
428 - 623	2
264 - 427	3
100 - 263	4
Less than 100	5

3. Trading Area Population, 1966

Trading area populations (defined by journey-to-work zones) were rated as follows:

Trading Area Population	Rating
Above 199,999	1
100,000 to 199,999	2
50,000 to 99,999	3
25,000 to 49,999	4
Less than 25,000	5

4. Wholesale Sales, 1961

Data are available only for centres of 5,000 population and over. The middle rating (3) includes the provincial norm for all urban centres. Other breakpoints are determined by a statistical procedure which normalizes the distribution of this measure so that there is a relatively even number of centres falling above and below the middle category for all Ontario.

Wholesale Sales ($ 000)	Rating
Above 78,229	1
43,740 to 78,229	2
14,510 to 43,739	3
1,000 to 14,509	4
Less than 1,000	5

Source: D.B.S. Census of Canada, Wholesale Trade, 1961, Vol. IV, Part 2

5. Manufacturing Employment, 1968

Data are available only for selected centres. The middle rating includes the provincial norm for all centres for which data are available. The categories were determined as in 4.

Manufacturing Employment, 1968	Rating
Above 13,500	1
4,501 to 13,500	2
1,501 to 4,500	3
500 to 1,500	4
Less than 500	5

Source: Special Tabulations, Ontario Statistical Centre, 1970.

6. Provincial and Federal Government Services

Government services data were provided by the Provincial and Federal Departments of Public Works and the Provincial Department of Justice (Real Property Inventory, 1969). This inventory consisted of an 85 per cent sample of all existing government services. Additional coverage was derived from telephone directories. The government services provided were weighted by spatial area and intensity of service provided. Weighting was done on a scale of 1 to 5 for each service.

(i) Spatial Area of Service Provided
The following weights were used for the spatial area of service provided:

Spatial Area	Weight
Immediate urban area	1
Urban area plus adjacent townships (typically the journey-to-work zone)	2
County or district area	3
Economic region	4
Province	5

The following are typical examples of spatial area weights:

1. Provincial: Department of Highways - patrol yard
   Federal: Postmaster General - Post Office

2. Provincial: Department of Justice and Attorney - General - O.P.P. Detachment
   Federal: National Revenue - Customs and Excise office

3. Provincial: Department of Lands and Forest - General office
   Federal: Department of Manpower and Immigration - Manpower office

4. Provincial: Department of Social and Family Services - Regional office
   Federal: Indian Affairs and Northern Development - Regional office

5. Provincial: Department of Justice and Attorney General - Ontario Police College
   Federal: Department of Transport - Headquarters of Welland Canal Operations

(ii) Intensity of Public Use of Service Provided

Weight	Intensity of Use
1	(a) This service is used primarily as an administrative unit. (b) The service is also offered by agencies other than provincial or federal agencies; i.e. private and/or municipal bodies (c) The service is not a direct contact with the people it services. Typical examples include, at the provincial level, the Department of Treasury and Economics Savings Bank, and at the federal level, the main Administrative Offices of the Department of Agriculture.
2	This service caters to relatively few people in relation to the total trade area of the centre. Specifically, it caters to selective groups that are not dominantly from the trade area in which the service is located. The service may also be offered by agencies other than provincial or federal agencies; i.e. private and/or municipal bodies, and is used quite intensively by the general population. A provincial government example would include the Department of Correctional Services - Reformatory; and the Federal Government Level, an example would be the General office of the Department of Indian Affairs and Northern Development.
3	This service caters to a moderate selective group of people on a day-to-day basis, but is not generally available to everyone who asks for it. There are certain prerequisites needed in order to qualify for the service. Examples would include the provincial Department of Social and Family Services, General Offices, and General offices of the Federal Department of Health and Welfare.

4	This type of service caters to people on a day-to-day basis. The service is geared to offer a specific function for a limited period of time. Ontario Provincial Police Detachments of the Department of Justice and the Attorney - General and Canada Manpower Centres of the Federal Department of Manpower and Immigration are examples.
5	This service caters to people at large on a day-to-day basis. The service can be used by anyone at any time of the year. A typical example would be post offices.

Finally centres were rated according to both the spatial and intensity weights based on an aggregation of scores for both Federal and Provincial services. In this way, the number and importance of all government services were ascertained for each centre. Ratings were allocated according to the following aggregate scores.

Total Federal and Provincial Intensity and Spatial Weights	Rating
Above 150	1
86 to 150	2
51 to 85	3
30 to 50	4
Less than 30	5

7. Population Growth of Centres, Percentage Change, 1961 to 1969

% Change 1969/61	Rating
Above 27.4	1
16.3 to 27.4	2
6.7 to 16.2	3
4.5 to 6.6	4
Less than 4.5	5

Source: Department of Municipal Affairs, Ontario Population Statistics, Community Planning Branch, 1968.
Department of Municipal Affairs, 1970 Municipal Directory, Municipal Finance Branch, 1970.

The data are again normalized and percentage change categories chosen so that the middle range includes the provincial rate of change with an even distribution of centres above and below the provincial range.

8. Retail Sales, Percentage Change, 1961 to 1966

Data are available only for centres of 1,000 population and over. The data source is the D.B.S. Census of Canada 1961 and 1966.

% Change 1966/61	Rating
Above 96.3	1
59.3 to 96.3	2
36.0 to 59.2	3
10.0 to 35.9	4
Less than 10.0	5

The third rating includes the provincial rate of change of retail sales for this time period.

9. Manufacturing Employment, Percentage Change, 1961 to 1968

The data source is the same as in measure 5 with categories chosen by the same statistical procedure.

% Change 1968/61	Rating
Above 68.2	1
40.2 to 68.2	2
16.2 to 40.1	3
-23.9 to 16.1	4
Less than -23.9	5

Source: D.B.S. The Manufacturing Industries of Canada, Geographical Distribution, Section 9, 1961; Special Tabulations, Ontario Statistical Centre, 1970.

10. Growth Prospects of the Economic Base, 1969

A five fold rating was developed to rank each centre's growth orientation of the economic base utilizing to large extent information gathered in field surveys, from municipal and regional

planning organizations, the Regional Development Councils and the Services Section of the Regional Development Branch. In this context the following topics were considered:

- an evaluation of the proportion of employment in each centre in anticipated growth industries.
- a careful look at the tertiary sector, especially in terms of city and region-serving activities.
- the capacity of the centre to attract new employment noting recently announced new plants.
- the capacity of the centre to absorb further population growth especially in terms of housing and other elements of the socio-economic infrastructure.
- an investigation of the development to date of the transportation network serving a centre and especially in terms of providing residents with easy commuting access to employment and services and for the private sector, significant labour markets.
- the attractiveness of the centre in terms of cultural and recreational services.

Growth Prospects	Rating
High	1
Medium to High	2
Medium	3
Slow to Medium	4
Slow	5

11. Accessibility Rating, 1969

This indicator was developed from accessibility scores using four transportation modes - road, rail, water and air.

Road: The weights given to each centre depended on its proximity to the nearest freeway interchange and density of secondary road links. The data source was Official Road Map, 1969, Department of Highways, Ontario.

Rail: Using the Economic Atlas of Ontario, published for the Government of Ontario by the University of Toronto Press,

1969, and data from major railway companies, scores were derived by determining each centre's proximity to existing lines and major freight terminals.

Ports: A scoring system taking into consideration different types of ports and facilities and the accessibility of centres to these ports is the basis on which a total port score was developed. The classification of ports originated from data on handling and service facilities, maximum draft and wharves feet, as shown in the Atlas of Ontario 1969, (Map 91).

Airports: Scores related to the proximity of centres to major airports and to secondary airports (with full year operation).

The accessibility rating summed the road, port and airport scores for each centre which was then classified according to the following:

Accessibility Score	Rating
Above 91	1
75 to 91	2
60 to 74	3
45 to 59	4
Less than 45	5

12. Cultural and Recreational Facilities, 1969

This measure portrays in the aggregate the availability of such local amenities as: cinemas, arenas, billiard parlours, bowling alleys, dance halls, curling clubs, golf courses, local libraries, auditoriums, art galleries, universities museums, symphony orchestras, theatres and so on. Some of these facilities are relevant only to the smaller urban areas. Other cultural and recreational facilities (such as the last six mentioned above) exist only when the level of demand is quite large. The availability of facilities are therefore ranked in relation to the size of each urban centre.

In addition, there are unique facilities such as historical features, festivals, athletic games, carnivals etc. which give special densities to urban centres in which they occur. In sum, the availability of cultural and recreational facilities plus unique local events are rated for each urban centre according to the following scale:

Availability of Cultural and Recreational Facilities	Rating
Good	1
Moderate to Good	2
Moderate	3
Poor to Moderate	4
Poor	5

13. Water and Sewer Spare Capacity, 1968-1969

1968 data on these services were derived from the Ontario Water Resources Commission, field surveys conducted by the Regional Development Branch, and data from the 1968 Industrial Directory of Municipal Data for Ontario Municipalities, Industrial Development Branch, Department of Trade and Development. The following is a description of the characteristics involved in the ratings:

Characteristics of Water and Sewage Systems of Centres	Rating
The systems have ample unused capacity, relative to the centre's population, in both water and sewage.	1
The systems are adequate for moderate community expansion but there exists constraints in one of the service which may limit growth potential.	2
The systems are operating at or near capacity. Community expansion is limited unless the present system is extended or certain limiting problems within the system rectified.	3
Either the water or sewage system is inadequate to meet future population or industrial demands. There are definite growth constraints and capital outlays will be necessary before growth can be accommodated.	4
(a) Both water and sewage facilities are inadequate to meet current demands. (b) There are no municipal water or sewage systems.	5

14. Availability of Industrial Sites, 1968 - 1969

Among other things, the potential success of urban centres in attracting new manufacturing plants (and hence increased employment) depends upon the availability and the degree of development of suitable industrial sites. The following rating system attempts to assess not only the area of industrial land available (acreage), but also the equally important municipal action in controlling land costs (municipal ownership), land use (zoning by-laws) and the provision of services (i.e. water, roads and railways).

Site Characteristics	Rating
Ample land acreage owned, zoned serviced	1
Ample land acreage not zoned but serviced, or zoned but not serviced	2
Limited land acreage, owned, zoned and serviced	3
Limited land acreage not zoned but serviced, or zoned but not serviced	4
No land available for industry	5

CHAPTER VIII

GOALS, NEEDS AND PRIORITIES

Introduction

This report began with a discussion of broad provincial goals for attaining the full social, economic and physical development potential of Ontario's ten development regions. Whether these goals are defined in terms of employment opportunities, social services or environmental protection, they all reflect the search for an enhanced quality of "livability" which is a concern shared by all regions in the Province, and indeed by all provinces of Canada.

What does differ from region to region is the nature and severity of the local problems which must be overcome if each region is to attain these goals. While the principal purpose of this phase of the regional development program is that of identifying the problems and needs of the region, a later phase will be concerned with devising strategies and plans for solving these problems and guiding future development.

As noted in the 1966 White Paper, Design for Development, Phase I, "Much of Ontario's regional development program will be accomplished by a thorough-going coordination of the programs, policies and spending of government departments ... on a regional

basis." One of the prerequisites to effective use of the provincial budget as a mechanism for carrying out regional plans is the classification of all provincial program spending according to the types of problems and needs these programs are designed to serve.

Currently, each department is engaged in a coordinated planning program of defining its own overall departmental goals and problem-solving program objectives. Since the problems with which these provincial programs are concerned all reflect the local needs of one or more regions in Ontario, our regional development plans must ultimately reflect the program objectives being defined by individual departments and their budgetary plans for solving these specific problems.

Rather than duplicate these parallel provincial efforts to define program objectives, this report addressed itself to the equally important task of supplying the essential regional ingredient to what is an overall provincial planning program - that is, providing an assessment of priorities among the major needs of each county and total area of the Midwestern Region. To maintain co-ordination with program planning and permit inter-regional comparison, potential regional needs have been standardized and classified in accord with eight broad functional categories being used for provincial program analysis.

For some of the issues covered, inadequate data precludes a staff judgement of local priorities at this time. In many other instances, the assessment must be considered to be preliminary. Major efforts have been made to incorporate the recommendations of other provincial departments. Since the best knowledge of regional needs can often be determined only by those who enjoy a day-to-day contact with local problems and aspirations, extensive use has been made of the Midwestern Ontario Regional Development Council's own five-year program recommendations and the parallel reports of the Midwestern Regional Advisory Board.

One of the most important purposes of this report is to provide these latter two organizations with the opportunity to review their assessment of local priorities, and with the participation of local municipalities and private citizens, to assist the Ontario Government in achieving a full appreciation of those regional conditions to which our plans and provincial budget should be directed.

The discussion of needs refers back to problems which have been analyzed in earlier chapters, and incorporates a brief commentary on the implications of prospective future changes in technology as these relate to specific regional needs.

1. Function of Economic Development

GOAL - To Assist Each Region to Attain its Full

Potential for Economic Development, Consistent with Orderly and Rational Development of the Province as a Whole.

This goal refers to the enhancement of income, output, employment, the economic base, occupational mix, and general economic efficiency of the Midwestern Region.

Important Problem Issues

One of the prime concerns in the Midwestern Region is the need to increase the general efficiency of the labour force; that is, to improve output per worker in all sectors of the economy. This is particularly important in the more rural areas of the Region which include Huron, Perth, and Northwest Wellington counties.

Consonant with increasing the efficiency of the labour force, is the need, in particular areas, to increase the diversity of employment opportunities. Because of the lack of employment opportunities, reduction in the agricultural labour force, and remoteness from the social and cultural amenities offered by the major urban centres, there has been considerable out-migration of population, particularly from Huron County and in Northwest Wellington. In addition, because of the lack of a diversified economic base in these areas, and the resulting restriction of employment opportunities, seasonal and annual fluctuations in employment have occurred.

In order to bring about greater diversity in the economic base of various areas in the Midwestern Region, as well as to provide additional employment opportunities, it will be necessary to increase the number of urban centres which are large enough to permit self-sustained growth in various economic activities.

Since agriculture is one of the more important sectors in the economic base of the Midwestern Region, it is desirable to improve productivity and gross sales per farm. This means increasing farm units to a viable size, promoting efficient agricultural resource-based industries to use local agricultural products, as well as improving the marketing and distribution of farm products.

These are the more important problem issues relating to economic development in the Midwestern Ontario Region that have arisen from the findings of the socio-economic base study and our discussions with people in the Region during the course of our field surveys. Table 8.1 lists needs relating to economic development with priorities given to each of the counties based on regional needs.

Technology

The Midwestern Region is ideally located in the centre of the urban complexes of Toronto in the east and the Windsor-Detroit area in the west. Future development envisions two major

Table 8.1

ECONOMIC DEVELOPMENT PRIORITIES

Needs	Huron	Perth	Waterloo	Wellington	Region
Increase per capita income and productivity	H	H	L	M	M
Reduce out-migration or increase population growth	H	M	L	M	M
Reduce unemployment; annual and seasonal	H	M	M	L	M
Increase male employment opportunities	H	M	L	M	M
Increase female employment opportunities	L	M	L	M	L
Increase or provide employment opportunities for skilled people and those with higher education	H	M	L	M	M
Increase manufacturing employment	H	M	L	M	M
Increase services and construction employment	H	M	L	M	M
Increase industry diversification in each sector	H	M	L	L	M
Increase urban centres for industry and services	H	M	L	M	M

H - High priority, M - Medium priority, L - Low priority

urban corridors; one stretching from the east of Metropolitan Toronto along Highway 401 to Windsor-Detroit, the other from the Windsor-Detroit complex along the Lake Erie shoreline to the Niagara Peninsula and the United States.

In the survey of manufacturers in the Midwestern Region, employers were asked what increases or decreases they anticipated in plant size, output and employment. Almost 93 per cent of the 135 firms surveyed were planning to either maintain or increase their plant size. Only one per cent anticipated a short-term decrease in plant size; the remaining six per cent were non-commital.

Over 63 per cent of the firms anticipated future increases in output - almost 32 per cent indicated that outputs would increase because of expanding markets; while over 25 per cent indicated that their outputs would increase because of mechanization and/or technological change. The remaining firms indicated that future increases in output would result from favourable tax structures, increasing public and private investment, proximity to related industries, and possible government incentives and/or subsidies.

As a result of anticipated technological changes, firms indicated that there would be additional need for more skilled and semi-skilled workers. This is particularly relevant to the counties of Huron and Perth which presently have a substantial proportion of

unskilled workers.

2. Function of Transportation and Communication

GOAL - To provide Increased Accessibility for Urban and Rural Communities in the Economic Movement of Persons and Goods.

This goal relates to transportation and communications and is examined in terms of accessibility - accessibility between centres of population; to natural resources; between centres of population and transportation facilities, such as airports; and between centres of population and recreation areas. Also implied is the need for better communication facilities and the need for comprehensive planning in the areas of transportation and communications.

Important Problem Issues

Present highway facilities are generally adequate to handle current traffic volumes. In certain instances, however, there is a need to improve highway connections to points within and beyond the Region. These include highway improvements and additions: (i) from Highway 403 and the Niagara Region north to Highway 401; (ii) from Stratford to Highway 401 and to the Kitchener-Waterloo area; (iii) to highway facilities along Lake Huron to accommodate increasing tourist traffic; (iv) and improved connections to the Owen Sound-Bruce Peninsula tourist region from North

Wellington County.

There is the possibility that certain rail lines may be discontinued in Midwestern Ontario. If this happens, and no alternative services are provided, many centres in the northwestern part of the Region would be without any passenger services.

Transportation and communications investment may be used as implementing tools to shape the form of future regional development. This would help in providing the most effective combination of transportation and communication modes to meet regional needs, while at the same time assisting to structure future urban growth.

The Kitchener-Waterloo area will be needing additional water supplies in the future if present growth patterns persist. One of the alternative means of securing water is a pipeline.

Technology

The introduction of hovercraft or hydrofoil services on the Great Lakes will become increasingly feasible for the transportation of both goods and people. Hovercraft have an advantage over the hydrofoil in that they can be used over either land or water, and the winter freezing of the Great Lakes would not interfere with the provision of regular services. With the imminent development of the Great Lakes Megalopolis and increased interaction

Table 8.2

TRANSPORTATION AND COMMUNICATION PRIORITIES

Needs	Huron	Perth	Waterloo	Wellington	Region
Road improvements for rural areas, smaller centres	L	L	L	L	L
Road improvements between larger urban centres	M	M	M	M	M
Improvement to airport facilities and services	L	L	L	L	L
Access to and from airports	M	M	M	M	M
Passenger rail services maintenance	M	M	M	M	M
Rail cargo services maintenance	L	M	M	M	M
Air freight services development	n.a.	n.a.	n.a.	n.a.	n.a.
Truck freight services improvement	M	M	M	M	M
Pipeline transport of natural resources	L	L	H	H	M
Natural resource development roads	n.a.	n.a.	n.a.	n.a.	n.a.
Port facility improvement	L	n.a.	n.a.	n.a.	L
Improved access to recreation areas	H	H	H	H	H
Scenic highway protection or development	?	?	?	?	?
Improvment of communications facilities	L	L	L	L	L

H - High priority, M - Medium priority, L - Low priority
? - Data not available at present
n.a. - Not applicable

between its major urban nodes, considerable demand will be generated for the development of fast and regular services on the Great Lakes.

GO-train type services may become desirable to connect the major centres of urban population in the Midwestern Region with other major centres of influence, such as Toronto and London. Such services would increase accessibility between the centres through reducing the time-distance between them and would also reduce road congestion. Increased use of containers in the movement of goods by rail is highly probable.

Containerization, which has already become important in the movement of general cargo, will continue to increase in importance. In order to provide this faster, more convenient service to the industries in the Midwestern Region, ports will need specialized handling facilities.

The most significant development in air transport in recent years has been air freight for semi-bulk goods. The new jumbo jet airport scheduled for Ontario will benefit the industries both in the Midwestern Region and in other areas of the Province.

3. Function of Community and Regional Environment

GOAL - To Develop Ontario's Community and Conserve its Regional Environment in a Manner Which Will

Provide Optimum Livability for Current and Future Generations.

This goal relates to community and regional environment and contains an examination of such items as pollution and use of natural resources, space, and land in urban areas.

Important Problem Issues

Of primary importance is an adequate supply of water and sewage facilities. Water shortages have been forecast by various agencies, this shortage being most critical in the "Golden Triangle" area of Waterloo County. Sewage, which also includes industrial waste, is of concern across the Midwestern Region, with many communities having facilities running at or near designed capacity.

The problem of competing land uses cannot be overstressed. In particular, the "Golden Triangle" and the Stratford area must optimize land use between agricultural and urban demands. The Mennonite community is being slowly encroached upon by the continuing growth of nearby urban communities.

The environment of Midwestern Ontario communities should be protected, especially from pollution. Fertilizers, pesticides, and other chemicals should be used carefully in order to preserve the ecological balance. In addition, the adverse social and

Table 8.3

COMMUNITY AND REGIONAL ENVIRONMENT PRIORITIES

Needs	Huron	Perth	Waterloo	Wellington	Region
Municipal water supply	M	H	H	M	H
Municipal sewage treatment	H	H	H	H	H
Reduction of air pollution	?	?	?	?	?
Reduction of scenic pollution	?	?	?	?	?
Reduction of environmental pollution by chemicals, pest controls	H	H	H	H	H
Urban noise abatement	?	?	?	?	?
Protection of prime farmlands	L	H	H	H	H
Preservation of prime recreational areas	H	H	H	H	H
Protection of fish and wildlife habitat	H	L	L	H	M
Reduction of erosion	M	L	L	L	L
Conservation of prime forest resources (woodlots)	H	M	L	L	M
Use and restoration of mining sites	L	L	L	L	L
Retain open space between urban centres	L	L	H	H	M
Prevent urban sprawl along highways	M	L	H	M	M
Concentrate urbanization in selected centres	H	M	L	M	M
Maintain variety of different sized centres	H	M	L	M	M
Maintain quality of urban neighbourhoods	?	?	?	?	?
Prepare urban and rural land use plans	H	H	H	H	H

H - High priority, M - Medium priority, L - Low priority
? - Data not available at present
n.a. - Not applicable

environmental effects of production activities, whether it be pollution by air, water, soil or noise, should be minimized.

Technology

Although water and sewage facilities are now at, or will soon approach capacity, technological innovations in this area can solve some of the problems and needs of the Region. Water can be transmitted by pipeline from considerable distances. Again, sewage can be chemically treated, and by means of an osmosis process, water can be recycled into the municipal system for consumer purposes.

Other pollution control devices are being constantly introduced in order to protect the community and regional environment.

4. Function of Social and Economic Welfare

GOAL - To Provide Opportunities and Encouragement for Every Individual to Meet His Basic Economic Psychological and Physical Needs and Develop His Fullest Potential for Self Sufficiency While Maintaining Individuality, Dignity and Self-Respect.

Generally, this goal incorporates concern in the areas of the disadvantaged, both socially and economically; housing in

respect to variety and quality; equalization of opportunities for ethnic and immigrating groups; and the bringing of rural and urban living standards closer together. Although this goal is of some importance regionally, the Midwestern Region would appear to be in a favourable position, both socially and economically.

Important Problem Issues

One of the problems in the Region is the need of multi-service centres, accessible to as wide a range of people as possible. This is especially important in the more rural areas.

As can be seen from Table 8.4, data were not available to make a true evaluation of these needs. Consequently, value judgements have been made based on discussions with people knowledgeable about the Midwestern Region. Certain factors should nevertheless be mentioned, since they will affect any improvements in the socio-economic conditions of the people of Midwestern Ontario.

(i) the relatively higher proportion of aged people in Huron and Perth counties;

(ii) the relatively higher proportion of younger people in Waterloo County;

(iii) the lower levels of income in the more agricultural and western part of the Region;

Table 8.4

SOCIAL AND ECONOMIC WELFARE PRIORITIES

Needs	Huron	Perth	Waterloo	Wellington	Region
Increase proportion of families living above poverty level	M	M	M	M	M
Reduce proportion of persons requiring welfare	L	L	L	L	L
Equalize opportunities for minorities, foreign born	n.a.	n.a.	n.a.	n.a.	n.a.
Reduce disparity between urban and rural income	M	M	M	M	M
Improve social services for low income groups	L	L	L	L	L
Improve social services for the aged	L	L	L	L	L
Improve social services for the young	L	L	L	L	L
Improve social services for family and marital counselling	L	L	L	L	L
Improve social services for physically and mentally handicapped	?	?	?	?	?
Group social services in accessible centres	M	M	L	L	L
Improve housing conditions	L	L	M	L	L
Reduce overcrowding in dwellings	L	L	L	L	L
Reduce housing cost for low income groups	M	M	M	M	M
Increase range of housing type choices	?	?	?	?	?

H - High priority, M - Medium priority, L - Low priority
? - Data not available at present
n.a. - Not applicable

(iv) the lack of low-cost housing in most parts of Mid-western Ontario.

Technology

Only one comment will be made with respect to technological innovation. With the increase in land costs, building costs, and interest rates, it is often difficult for families to purchase their own homes. The use of plastics as a building material in the future will considerably reduce housing costs. As a consequence, home ownership should be available to those desiring this type of accommodation. In addition, prefabricated and mobile homes should also offer lower priced accommodation.

5. Function of Health

GOAL - To Achieve the Best Possible Physical and Mental Health for Ontario Inhabitants at Minimum Public and Private Cost.

This goal is concerned with the reduction of the incidence of illness and the cost of health services. The goal also stresses the need to increase the availability of health services and facilities.

Other than medical facilities and services, little data were available relating to health objectives. Value judgements

Table 8.5

HEALTH PRIORITIES

Needs	Huron	Perth	Waterloo	Wellington	Region
Reduce infant mortality and premature deaths	L	L	L	L	L
Reduce communicable diseases	M	M	M	M	M
Reduce the incidence of dental caries	H	M	L	L	M
Reduce the incidence of mental illness	?	?	?	?	?
Reduce the incidence of drug addiction	?	?	?	?	?
Improve the medical facilities available	M	L	L	L	L
Increase the number of doctors, dentists, etc.	H	M	L	L	M
Improve ambulance services (any necessary mode)	M	M	M	M	M
Reduce public and private medical costs	M	M	M	M	M

H - High priority
M - Medium priority
L - Low priority
? - Data not available at present

have therefore been made with the assistance of persons knowledgeable of the Midwestern Ontario Region.

Important Problem Issues

Health facilities in the Region are adequate to service the present population. In the rural areas of the Region, however, there is a need for a greater number of doctors and dentists. The more rural counties are at a disadvantage both in terms of the time it takes to travel to the centres where professional attention is provided, and in the range of services available. Efforts are being made by the Ontario Department of Health (See Chapter 3) to attract medical and dental practitioners into areas designated as underserviced by means of guaranteed incomes and educational bursaries for medical and dental students. The success of such programs have yet to be evaluated.

Technology

Past and present innovations in the field of health continue to seize the imagination of the world. As a consequence of modern medical technology, the inclination of medical staff is to locate in major urban centres, or where medical schools are available, so as to have maximum use of modern equipment and the opportunity for consultation with their colleagues on important medical problems. The rural communities are often deficient in

the availability of medical expertise. Therefore, the role of medical technology will probably remain a function of the larger medical centres. However, the influence of these medical centres must exert itself upon other centres.

6. Function of Public Safety

GOAL: To Reduce the Hazards to Individual Life and Property from External Events and Maintain Personal Security.

This goal involves minimizing the hazards to life and property from traffic, recreational, industrial, occupational and other accidents and reducing the incidence of crime and fire.

Important Problem Issues

The Midwestern Ontario Region maintains a fairly satisfactory level of public safety as compared to the Province as a whole. There are no problem issues that demand high priorities of attention. Medium priorities should be placed on the reduction of traffic deaths, occupational accidents and reduction of fire hazards.

In Huron County, high priorities should be placed on the reduction of traffic fatalities, and the need to reduce "other accidents" and a medium rating on reducing recreational accidents and industrial fatalities.

Table 8.6

Public Safety Priorities

Needs	Huron	Perth	Waterloo	Wellington	Midwestern Region
Reduce traffic fatalities	H	H	L	M	M
Reduce recreation accidents	M	L	L	M	L
Reduce occupational fatalities	M	L	L	H	L
Reduce occupational accidents	L	L	M	L	M
Reduce other accidents	H	H	L	M	M
Reduce the incidence of crimes	L	L	L	L	L
Increase level of police protection	L	L	M	L	L
Reduce the incidence of fires	L	M	M	H	M
Reduce property damage from fires	L	M	M	M	M
Increase level of fire fighting protection	L	M	H	M	M

H - High Priority
M - Medium Priority
L - Low Priority

In Perth County, the problems relating to public safety demanding high priorities are the same as in Huron County. Medium priorities should be placed on the need to reduce fire hazards to the public.

In Waterloo County, the only high priority need should be attached to increasing the level of fire-fighting protection. Medium priorities should be placed on the reduction of occupational accidents, increasing police protection and reducing the incidence and property damage of fires.

In Wellington County, high priority should be attached to the need to reduce industrial fatalities and the incidence of fires. Medium priorities should be placed on the reduction of traffic fatalities, recreational accidents, accidents other than occupational, property damage by fire and the need to increase fire fighting protection. All other measures related to public safety should receive low priorities.

7. Function of Education

GOAL - To Provide Opportunities and Encouragement for Each Individual to Achieve His Highest Potential of Intellectual Development.

This goal emphasizes the need to improve the level of educational attainment and the quality of education.

Important Problem Issues

One of the basic concerns is to increase the number of students who attain a secondary school education. This is becoming increasingly important as a result of the educational demands placed on the individual by employers and by society itself. Because of these demands, there must also be an increased concentration on adult education in the Region. At the same time, education should become more personalized. Deficiencies in education would appear to be most evident in the counties of Huron and Perth.

Technology

In addition to educational television which is becoming increasingly prominent, the advent of television *per se* has greatly influenced our way of life and has made us increasingly aware of community and worldwide affairs.

The role of adult education will become increasingly important as technology develops in industry and the trades. The labour pool, particularly in Huron, Perth and Northwest Wellington counties, is relatively unskilled and consequently not prepared to meet the future requirements of modern society.

8. Function of Recreation and Culture

GOAL - To Enhance the Opportunity for Ontario Residents and Touring Visitors to Attain Maximum Recreational Enjoyment and Cultural Enrichment in the Use of Leisure Time.

Table 8.7

EDUCATION PRIORITIES

Needs	Huron	Perth	Waterloo	Wellington	Region
Reduce secondary school dropouts	M	M	M	M	M
Reduce pupil/teacher ratios	M	M	L	L	L
Upgrade smaller secondary schools	L	L	L	L	L
Increase post-secondary enrolment	L	L	L	L	L
Increase the number and variety of adult education courses	H	M	L	L	M

H - High priority
M - Medium priority
L - Low priority

This goal concerns itself with the provision of both public and private recreational opportunities and facilities, and the preservation of historical and cultural resources in the Region.

Important Problem Issues

Although the Midwestern Ontario Region has recreational resources, many of these are either undeveloped or not available for public use. On the other hand, most of the people live within day-use range of recreational areas outside the Region.

Table 8.8

RECREATION AND CULTURE PRIORITIES

Needs	Huron	Perth	Waterloo	Wellington	Region
Increase area in provincial parks	H	L	L	L	M
Increase area in regional and municipal parks	?	?	?	?	?
Increase public facilities for - campsites	H	L	L	L	L
- hiking trails	?	?	?	?	?
- picnic areas	M	M	M	M	M
- boating facilities	M	L	L	L	L
- swimming facilities	?	?	?	?	?
- snowmobile and ski trails	?	?	?	?	?
- scenic drives	?	?	?	?	?
- outdoor and indoor group sports	?	?	?	?	?
Increase private facilities for resorts	n.a.	n.a.	n.a.	n.a.	n.a.
Increase private facilities for weekend and vacation cottagers	H	L	L	L	L
Increase and improve libraries	?	?	?	?	?
Increase and improve art galleries, museums	L	L	L	L	L
Increase and improve television and radio stations	L	L	L	L	L
Increase and improve weekly and daily newspapers	L	L	L	L	L
Preserve historic sites and building	M	M	M	M	M

H - High priority, M - Medium priority, L - Low Priority
? - Data not available at present

Areas which are of outstanding natural beauty and recreational potential include the Niagara Escarpment, Waterloo Sand Hills and the Lake Huron shoreline.

Many cultural opportunities are now found only in larger metropolitan centres. Where applicable, recreational and cultural programs should recognize and promote cultural and ethnic diversities. The Region is well endowed with history, and the preservation of these cultural amenities should be encouraged.

With increased leisure and per capita income, the demands on the recreational and cultural resources of the Midwestern Region will continue to grow.

Overall Regional Priorities

Looked upon within the context of the Midwestern Ontario Region only, the eight functional goals have been examined and priorities allocated. These priorities have been based on the previous detailed discussion of each individual goal.

On a regional basis, no one goal was deemed to have a high priority. Medium priorities were assigned to economic development, transportation and communications, community and regional environment, health and recreation and culture. The remainder of the goals were deemed to be of lesser priority to the Region.

These included social and economic welfare, public safety and education.

The following is a tabulation of individual county priorities. Only those priorities which deviate from the Region will be noted.

In Huron County, economic development and community and regional environment, and recreation and culture received high priorities. Public safety and education goals both received medium priorities. The remainder of the functional goals in Huron County conformed to those of the Region.

Both Perth and Wellington counties conform fairly well to the regional goals. In the case of Perth County, education received a higher priority than for the Region as a whole; in Wellington County, health received a lower priority. A possible reason why Perth and Wellington counties conform fairly well to the regional priorities is the concentration of a large percentage of their populations in a major urban centre, specifically, Stratford and Guelph.

Of all the counties, Waterloo received the lowest priority ratings. This is probably due to its having the most diversified economic base and also being the most urbanized. The variations in this case pertained to the goals of economic development and

TABLE 8.9

OVERALL REGIONAL PRIORITIES

Functional Goals	Huron	Perth	Waterloo	Wellington	Region
Economic Development	H	M	L	M	M
Transportation and Communications	M	M	M	M	M
Community and Regional Environment	H	M	M	M	M
Social and Economic Welfare	L	L	L	L	L
Health	M	M	L	L	M
Public Safety	M	L	L	L	L
Education	M	M	L	L	L
Recreation and Culture	H	M	M	M	M

H - High priority
M - Medium priority
L - Low priority

health which received lower priorities than did the Midwestern Ontario Region as a whole.

CHAPTER IX

CONCLUSION

This report is the first phase of a development program for the Midwestern Ontario Development Region. It is, in essence, a socio-economic analysis designed to identify the problems and needs of the people of the Midwestern Region. It is part of the Provincial Regional Development Program which has been initiated in order to make the most efficient use of provincial budget and at the same time to assist each region to reach its potential within the framework of overall provincial requirements.

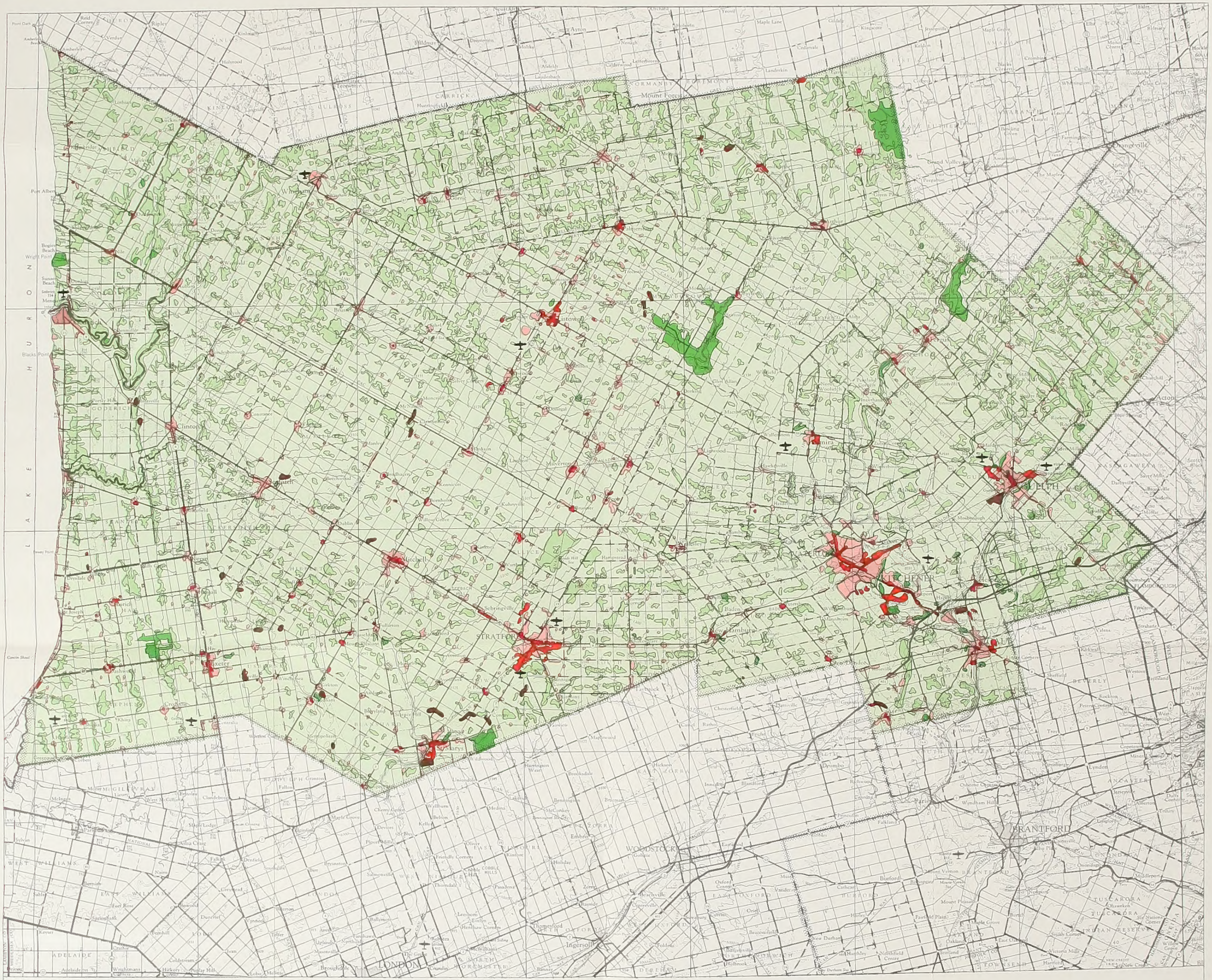
The next step in Midwestern Ontario is for the people who live in the Region and are experiencing the problems and pressures pointed out in the report to send the reactions and suggestions to the Government of Ontario, through their Regional Development Council or directly to the Regional Development Branch. It is suggested that the Midwestern Ontario Regional Development Council and other local groups review this preliminary report and express their feelings about its contents. Preliminary objectives and priorities have been established for each County of the Region. These are meant to present one point of view, subject to discussion by the people in the area. In some instances, value judgements were made with limited or no available data. Comments and priorities

regarding these objectives are encouraged from the people of the Midwestern Region.

While Phase I of this development program is an examination of the socio-economic base, Phase II will bring forward alternative development strategies for Midwestern Ontario and its various centres of opportunity. Rural and resource-based areas outside the influence of opportunity centres will be examined and alternative programs for development proposed.

The development strategy will attempt to optimize land use, rationalize the economic structure and hopefully bring a balance of social equity into the development process.

As with this report, Phase II will need to be scrutinized by the people of the Midwestern Region. Regional Development can only progress if the people of each region understand their problems and are prepared to set and accept priorities for solving them, priorities not only in the perspective of the region but of the Province as a whole.



MIDWESTERN ONTARIO DEVELOPMENT REGION

GENERALIZED EXISTING LAND USE

LEGEND

- Residential
- Commercial & Industrial
- Proposed Industrial Development
- Agriculture & Other Rural Land Uses
- Forest & Woodlands
- Public Open Space
- Extractive Industry
- Large Institutional Holdings & Indian Reserves
- Airports

BASE MAP LEGEND

Scale 1:250,000

N

Regional Development Branch, Department of Treasury and Economics

Figure 4